

With the New 1737. 11.
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London and Country

B R E W E R.

C O N T A I N I N G,

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| VIII. Brewing a Hoghead and a Half of Pale-ALE from fresh MALT, by a private Person. | XVII. Common PURL improv'd, by a famous new cheap Receipt now in use, rendring it far more wholesome and pleasant than by the common Way. |
| IX. The best Way to make ELDERBERRY-BEER (called EBU-LUM) CHINA ALE, and several other Sorts. | |

To which is added,

The CELLAR-MAN,

Or many Receipts to cure, preserve and Improve DRINKS in the Cask; wherein the Case of CLOUDY-BEER is accounted for, and its effectual Cure amply prescrib'd. A new advantageous Way to get out the SAP of new CASKS, and to Season them at once; likewise particular DIRECTIONS for BOTTLING MALT-DRINKS; with many other useful Matters, never before Publish'd; truly necessary for those who are concern'd in Brewing or Selling MALT-LIQUORS.

By a Person formerly concerned in a publick Brewbouse, at London, but who for Twenty Years past has resided in the Country.

The third and last PART.

L O N D O N:

Printed for the AUTHOR, and sold by Mess. Fox, in Westminster-Hall; and at their Shop at Tunbridge-Wells during the Summer Season; E. Withers, at the Seven Stars, opposite to Chancery-Lane, in Fleet-Street; T. Astley, at the Rose, in St. Paul's Church-Yard; and W. Meadows, at the Angel in Cornhill.

MDCC,XXXVIII. (Price 1s. 6d.)

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T H E
P R E F A C E.



AVING been pretty full and particular in the Prefaces to my two former Treatises, on this Subject, I shall be the Briefer here; and only observe, that, as I annually Travel through several Counties in the Way of my Business, I have had the greater, and really the only Opportunity of thoroughly acquainting my self with the different Methods of Making Malts, Brewing Beers and Ales, and Inspecting into their After-management; In all which, (tho' there be still too much Reason for Complaint) blessed be God, I have seen great Improvements, especially within these few Years, which, as they were very much wanted, and of great Importance to the Nation,

The PREFACE.

tion, induced me to use my utmost Efforts, in some Measure to bring them about, still hoping to see them advance, by the laudable Endeavours and Example of some unbiassed Persons, who will not any longer submit to support bad Customs, merely for the Sake of Profit, in a Case that so nearly concerns the Health and Well-being of Multitudes. The aforesaid new Methods of making Malts, Brewing Beers and Ales, and their advantagious After-management in the Cellar, with Variety of other usefull Matters never before published, I have here freely Communicated; which (I hope) will not only render the Work Compleat, but also be attended with its most wished for Effects, viz. The fully Apprizing the unwary Drinker of his Danger, as well as better Informing the Judgment of the Artist, and Directing his Practice in the right Channel.



to Brewing Malt Liquors.



CHAP. I.

Of the four Quarters of the Year, as they relate to Brewing Malt Liquors.

I. Of the Spring Quarter.



AIR of itself is a Fluid of an Elastick or Springy, yielding Nature, of a thinner or thicker Body, as it is more or less compress'd, dry, or moist. From the two Principles of Heat and Moisture all Bodies are opened, and made to exert and diffuse their innate good or bad Qualities, whereby they are rendred capable of mingling or incorporating with the Air of the Place. From hence it is, that there is a pregnant Reason for brewing in the spring Time, because then both Air and Water are stored with Exhalations from growing Vegetables, which join others, and especially those of the same Kind: and thus it is, that the

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2 Of the four Quarters of the Year, as

Particles which float in the Air, are, as it were, suck'd in by those of the Water, Malt, Wort and Hops, to their great Improvement, especially in the Open Country. Of this Communication, the ingenious Mr. Boyle makes a sort of Proof, by telling us that a Piece of Allum divested of its Salts, and hung up in the Air, will in time recover its pristine State from the Salts of the Air. Others say, that if a Water is distilled from a fragrant Vegetable, and becomes almost vapid and dead, tho' at more than a hundred Miles from any Land, will yet in the spring Time regain its Scent and Virtue, by joining in contact with its similar Particles, which float in the Air, and are diffused over the whole Earth and Sea: as is also particularly apparent in Wines, Cyders, &c. which commonly fret when the Vines and Trees are in Blossom. Therefore the spring Season must be very convenient for brewing Malt-Liquors; because then the Pores of the Earth are unlocked, and the Aromatick Nitral Vapours set free after having been bound in by the Winter cold; but now ascend by the warm Powers of the Sun, which replenish our Atmosphere with lively and Sulphureous Particles, arising from the sweet Vegetables that now exert their Strength by the Rarefaction and thinness of their Saps, and administer their fragrant and salutary Effluvia's to all things they can come at; and that in the greatest Perfection, when it arises from Corn-fields, Gardens, large Commons, and where Trees and Hedges are not too thick, and the Land too low and watery. And though Blossom-time is accounted dangerous for brewing even to a Proverb, yet I cannot help being of a contrary Sentiment, for reasons I shall by and by assign; and also because the Air and Waters in *March, April* and *May*, are seldom damaged by the violence of Heats and Droughts, which makes me suppose the Saying was broached when the Art of brewing was little known; for now the Springs generally run high by the Swell of the Winter Rains, that consequently must render them more pure: So that in this respect *March* far exceeds *October*, because it's to be supposed the Waters then are low after a Summer's dry Weather, which in course leaves them very

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very earthy. But the Rain Water in particular has the greatest Advantages, because it is freer from any earthy, saline and metallick Quality, than any other Sort whatsoever. Besides which, the fat, dewey and vegetable Exhalations in the Atmosphere, as they meet this delicate Water, must still be an additional Improvement to it, and make it exceed all other Sorts at this time of the Year for Brewing; and especially if Ale is made with it; which leads me to renew my former Observation, that now is the best Time to brew the Pale and Amber Sorts of Malt-Liquors, for their more immediate enjoying the Rarefaction and Melioration of the Summer-Air, which best agrees with all Drinks made from tough Malts, that have the least Share of Fire in them; as the Winter-Air does with the brown Sorts, whose bodies are loaded with igneous Particles, and best reduced into a smooth temperate Condition by that frigid Season; and therefore *October* is very justly preferred for brewing such high Colour'd Liquors.

II. Of the Summer Quarter.

In this Season is the Extream of Heat and Drought, as in Winter of Cold and Moisture; and therefore 'tis not so agreeable to Brewing as the Spring and Autumn, because it hastens Fermentation too much: Upon which it has so great a Power, that it is difficult to keep the Drink from too high an Agitation; and then the Spirits fly away, which should be most carefully preserved for the Conservation and Fining of the Drink. Now also Rivers, and more especially Pond-Waters, are most impure, not only from the great Quantity of growing Vegetables, but likewise from the Breed of Insects, that makes it both unwholesome and improper for brewing. And here I must observe the Unhappiness of those People, whose business necessitates them to live in a bad Air, and in the Use of worse Water, which many in the Low-grounds of *Kent*, *Essex*, and some other Parts of *Britain* do, particularly those in and about *Prittlewell* and *Ratcliff*, about two Miles from the Salt Water in the Hundreds of *Essex*, over

Of the four Quarters of the Year, as

against the Isle of *Shepey*. It is here the Water so affects the Land-springs, that both their Wells and Ponds afford them little other than a brackish alluminous tasted Water; insomuch that it causes their Drink which is brewed with it, to turn soure presently, and their Bread to rope as well as their Beer; and the more because it's Saline Quality makes it so penetrating and sharp as to extract and bring away with it the Tincture of that muddy Sullage or Earth, that lies in great Quantities on their Shore, as well as those mineral Earths through which they are strained and pass; and thereby probably communicates such unwholesome Qualities to their Bread and Beer, which causes these lamentable Effects; as the Natives themselves justly believe, who say that their Water taints the Dough beyond the Power of the Fire to cure: For sometimes in two or three Days after it is baked, it will appear like Cobwebs, every time it is cut, and if broke, it will plainly shew it self stringy and ropy. Not but that I must own this cobwebby, ropy Condition of the Bread may be, and is often brought on by using stale soure Yest, when the Water is absolutely good. Yet here is a plain Proof of the Corruption of the Water, because if the Yest is good, these Misfortunes will happen; to prevent which, some of them boil Hyssop in the Water, others the Twigs of an Ash or Black-thorn, and find it very much answers their purpose both in Baking and Brewing. But there is a Difference even in brackish Waters, occasioned by the Nature and Situation of the contiguous Earth; for in the Yard behind the Governour's House at *Upnor-Castle*, that lies on the River *Medway* about two Miles from *Rocheſter*, there is a Well out of which they pump a Water a little Brackish; and yet it makes both excellent Bread and Beer, as I have often tasted: The Reason is, the Shore that lies near it is a clean Sand, and so is the Earth through which the Salt Water is percolated or strained till it mixes with the Fresh that supplies the Well: And what gives it a further Advantage is, that tho' it stands below the Level of the high Water-Mark, by which it becomes brackish, yet the Water is free from those infectious Particles that a

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muddy Shore, and a flat Situation would consequently give it: For the very same Reason, the Inhabitants of the great Castle of *Dover* enjoy a most fine clear soft Water, out of perhaps the deepest Well in *Kent*; and that free of any brackish Taste, because the Earth, adjoining to the Salt Water, is a Rock of Chalk, wherein this Well is situated within less than a Quarter of a Mile from the Sea. And here I cannot but observe a Neglect that many are guilty of, to make use of foul pond or river Waters, that in particular require first a Clarification of their fulsome, unhealthy Particles, before they are used in brewing, and especially such that are supplied by Currents from the common Road, or other dirty Conveyance. But where there is not Conveniency for doing this, or that the Trouble and Charge are thought too much to give them time in Cisterns or Tubs to make their Sediments; the last Opportunity ought punctually to be observed, and that is, by skimming clean such Water, as it is heating in the Copper: For though it may be objected, that these sort of Foulnesses may be discharged by the several after Fermentations, it is certainly wrong Management, to suffer such Filth to accompany the Wort till that Time; because the infectious Scum will be incorporated with the Drink, by the three Digestions of mixing with the Malt boiling and working, so as to tincture it with the ill Qualities that may be contained in such Waters, as I have shewn in the Example of Distillation. But when necessitated to brew with such foul Water, see the Remedy in my second Part. Well-Waters now are sometimes very low for want of sufficient Supplies of Rain, and thereby the subterranean Circulation is slow, and almost stop'd, which gives the Earth a greater Power to load such Waters with earthy, mineral, stagnating and insidious Particles, which in Spring and Winter, they are most commonly free from, by the Plenty of fresh Waters, that then saturate the Land; for which Reasons, all possible regard ought to be had to obtain Water in true Order, as it is the Fountain of Life to all Vegetables: for by it they are generated, nourished, and increased; and thus it opens the
Gates

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Gates of Nature, for all Properties to breathe and send forth their innate Qualities. — The softer and purer Part of Water may be drawn off, and the harder and more earthy, saline left behind, by passing it through an Alembick. Another common demonstrative Proof is, that of our Tea-kettles, whose Insides are loaded and crusted with the terrene, and fix'd saline rough Particles of the Water, which consequently must evaporate its better, softer and more pure parts by boiling, and thereby render it harder.

III. Of the Autumn Quarter.

This Season is commonly attended with moderate Weather, and often fine Showers, especially about *October*, that then begin to recruit the Rivers, Ponds, and Wells, with fresh Supplies of pure Water, after a dry Summer; which capacitates them to be more serviceable in brewing good Malt-Liquors, than in the preceeding Season: But are most advantagious to the brown Sorts, which stand in need of a cold Air to reduce their fiery, sharp Particles, that by many, of the Country People in particular, is not at all regarded, whom I have known to use a hard keen Water for this Purpose, which in a great Measure locks up the Pores of this Sort of parch'd and burnt Malt, and so deprives them of their expected Length or Goodness of their first Worts; which a soft Water would easily extract and bring away, and which in brewing strong *October* brown Beer, must be very detrimental, because it not only deprives them of their Quantity, but also endows such Drink with a sharp, griping Quality, that the sooner brings on Staleness and Loss. A further Proof of the Effect of hard Water we have very plain in a fresh Cod, which to dress nicely, the Cook cuts into several small Pieces, in order, as they call it, to crimp it, by letting them lie in hard cold Spring-Water about an Hour, and then boiling it in the same sort; by which Management it will harden, curdle and keep its Whiteness, insomuch that it will eat almost

they relate to Brewing Malt-Liquors.

most as firm as Beef. But in case there is no other Sort to be had to brew this brown Malt with, or If Pond or River-Water be foul, take some Ashes made on a clean Hearth burnt to Whiteness, from green *Ash*, or from *Beech* which some say is better; and after they have been well sifted, put the fine Ashes in a Bag, and hang it a whole Night in a Cask, Cistern, or square Tun of such Water: It will not only soften the one, but cause the gross Particles of the other to subside by Morning, and in a great Measure cure it of the unwholsome, metallick Qualities, make it better extract the Virtue of the Malt, and preserve it against Foxing, being of so wholesome a Nature as to be prescribed by Physicians as a good Diuretick.

When such Water is thus prepared for Brewing, draw it out of a Tub or other Vessel, by a Syphon, or a Cock, placed three or four Inches above the Bottom, that the Fæces may be left behind. At a certain Town in *Sussex*, from *Michaelmas* to *Alballontide*, their Well-Water has such an earthy ill Quality, as renders it unfit to brew with; because the strong Beer made of it won't work, in so much that they have been forced to brew it over again, though all the rest of the Year it is pretty good. Yet, by way of security, they are forced to boil their Wort several Hours, else it will stink in a Week or two's time. This Town joins to the Salt Water.

IV. Of the Winter Quarter.

Now Water by cold becomes of somewhat a thicker Body, so that though it is in it's utmost Heat, yet is it not so Capable to enter the Pores of the Malt and wash out it's Salt and Oyl, as when us'd in a more temperate Season. The same Effect also the Cold Air has on the Malt to restringe and keep back the Emission of its Virtue; for which Reason at such a Time, the Water should be used in the Highest degree of Heat the Nature of the Malt will admit of. To do which there consequently must be a greater Evaporation of Steam, which certainly is very prejudicial to the Drink; because the Vapour of the Water

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Water is no less than the lighter, purer, more subtil and penetrating Part of it, that should enter into the small Pores of the Malt, and there, by its attenuating Particles, open, dilute and wash the Oil out of its tenacious mealy Body. From whence it is plain that there is a great Expence and Loss of the Water's finer Parts by the Steam, to the prejudice of the Drink; and though it is a general Practice to brew without having any regard to this serviceable Management, it is nevertheless true, that this Observation is most Valuable, and by all means should be observed with the greatest Nicety by all Brewers whatsoever. This Season greatly retards Fermentation, as the Summer forwards it too much. ————— Therefore a prudent Brewer will now avoid this Work as much as he can, and be the more cautious in guarding what Wort he's necessitated to make, from the danger of this Extream.



CHAP. II.

The State of Barley for the Year 1737.

THIS Summer 1737, being a very dry one, and attended with a wet Harvest; that Barley which was sown early in *February* and *March*, got so speedy a Cover, that with the Help of the Dews it grew apace, and prov'd an excellent Crop; but that which was sown later, in *April* and *May*, as bad. The first Shoot and Ear was of a large Size, the last produced a little Shoot and small thin Kernel; insomuch that this, and that which sprouted in the Field by Rain, after it was mow'n, would not make Malt; which occasion'd a Person of good Judgment to say, that he verily believ'd; every tenth Corn never spired on the Floor, but remained Barley to the last. Nay it was reported, that seven Quarters of these underling

ling Kernells were sifted out of a large Quantity of Malt, which in a manner prov'd all Barley, and fit for little else but to grind and fat Hogs. So that many must consequently have suffer'd a great Loss, (the ignorant Buyer especially) both by Measure, Tax, Making, and above all by the Disappointment of Brewing good Drink; for that there has not been such a Season these seven Years past for bad Barley. This therefore is to inform all Farmers, and others who are Sowers of Barley, of that incomparable and invaluable Receipt, for the Improvement of this Noble Grain, publish'd by *William Ellis* of *Little Gaddesden* near *Hempsted* in *Hertfordshire*, in his Monthly Book for *April*, 1736, intitled *New Experiments in Husbandry*; which shows a new Method how to steep Barley Seed in a certain cheap Liquor a Night and a Day, and then to lime and sow it: A Receipt first invented at *Paris*, but perfected in *England*; which will cause it so to branch as to bring on a Cover at once, and secure the Crop throughout the Summer, in a flourishing Manner, with little more than the Help of Dews, and also give the Barly a fine even Body, an exalted Virtue, and a great Increase; as he himself yearly proves, and which no Sowers of Barley should be without, because even in later Seasons, on Chalks, Gravels and Sands, the Ingredients will bring on a most fertile Cover and Growth. In the same Book is contain'd many more practical, valuable Secrets never before publish'd, and sold by the Booksellers hereof.

C H A P. III.

Of Malt Kilns.

THE Plate Kiln, and the Tyle Kiln, which are full of small Holes, were invented to dry brown Malts, and to save Charges; because in both these they use no Hair Cloth, but dry three Kilns of Malt in less than 20 Hours.

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These I cannot commend, by reason the Ends of the Corns are apt to pitch and lodge in the Holes, and there are parched or burnt, when some other Parts of the Malt's Body will be in another Condition. So likewise is it with the Wire-Kiln, which is also work'd without the Hair-Cloth; but then the Kernels are apt to lye between the Wires and be scorched too much. However these all answer their Ends in making a high colour'd Malt to please the Londoner, especially, with their blood-red Drink. The next is the Free-stone Kiln, one of the best Sort of all for drying pale Malt, either with Coak, Welch-coal, or Straw, &c. and generally is at least twenty Hours in drying off one Kiln. Its common Dimensions are twelve Foot square, laid with four Rows of Stones, three Foot wide each Stone, or with more if less, containing many holes, each being as broad again at Bottom as at Top, over which a Hair-cloth lyes; these Stones lie on common flat Iron Bars, supported by common square upright Iron ones; and is now more and more in use. I have also seen another very profitable and sweet Method of drying brown Malts, exceeding all the Wire, Plate and Tile-Kilns, performed by the help of four cast Iron Plates, of about an inch thick or somewhat more, and near three foot square, with which they burn Newcastle Coal, and convey its fulsome Smoke through a Flew or Funnel, so that the Malt is dry'd very leasurely and in a pure Condition, by the Heat contained in the several Pieces of cast Iron; which at first was invented to supply the Place of the Iron Pipes that dry'd Malt by hot Air, at a very chargeable Rate; but this is a very cheap Way. Now as there are various Sorts of Fuels and Kilns to dry and cure Malt with, there are also diverse fancies and opinions concerning them. Some will use no Drink made from Welch-coal, alledging it has a disagreeable Tang from its sulphureous and smokey Vapour. Others argue, the same, on account of Coak or Cinder. Others object against the smokey unpleasant Taste of Drink made from Malt dry'd with Wood; while some again are Advocates for it, and prefer it to all others; so that the Custom of the Place in a great Measure carries

Of Fuels for drying the several Sorts of Malt.

ries it. However, there is too much Truth in this, that was said by a judicious Maltster, in a famous Town where there is reputed to be above twenty of them; That not above six of that Number were Masters of their Business. But, let them understand the Art ever so well, and practise it with the most advantagious Conveniencies, yet none can come up to the help of Flews, or Malt dry'd by the Sun alone, through a sufficient number of Glass Windows in a proper Situation.



C H A P. IV.

Of Fuels for drying the several Sorts of Malt.

Wood.

THIS Article I think myself obliged to reassume, although I have already wrote on the same in my former Treatise; because I have since seen different ways of performing the drying of Malts. There are many Maltsters where Wood is plentiful that use this Fuel, as being the Cheapest they can have for their purpose, and is generally of but two Sorts, viz. The *Oak* and the *Beech*. The first, as it is of a very hard and durable Substance, they lay up in great Piles or Cocks to dry, and waste the sappy phlegmatick part of the Wood, so that when they come to use it, it will the sooner run into fire, and consequently less smoke, whereby the Tang or Vapour of it does the less Harm to the Malt. And so careful are they in this respect, that some will keep the *Oak* fort seven or ten Years by them before they use it. But as the *Beech* is a Wood that much sooner decays, they only pile it abroad one Year, and take it into the Malt House next, so that two Years fits this for Use. And to make it answer better, many in the Western Parts burn Coak with this, or *Oak*, and thus make it run sooner

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into a clear Fire, and less into Smoke. The Roots also of the *Oak* by some are prefer'd, because of their soft nature and quick burning. So the *Ash* Billet is esteem'd a valuable Fuel, but this is scarce in most Places. With this Fuel of Wood, they generally dry their brown Malt.

Coak.

This consequently has less Sulphur or Bitumen in it than the Welch-Coal or Culme, provided it is carefully cured in the Oven or burning Place. For in the Management of this, there is a considerable Difference, which makes them say, that the Coak made at the Coal-pits, much exceeds that made elsewhere; because there they burn it in larger Cakes than they do in other Places, for the smaller it is burnt the worse it is. However, to make this go the further, many, as I have observed, lengthen it out with *Oak* of ten or fifteen Years old, which they burn together in a fixed Grate; for by this Age such Wood comes near Charcole which is the best of Fuel, and which undoubtedly would be mostly used for drying Malts, could it be afforded; because, nothing is more detrimental to Malt than Smoke; and though the Wood of *Ash* yields the whitest Smoke, yet will such sooty Vapour, tinge the Malt with a high Colour. With Coak they generally dry the Malt used for brewing Ale; for if this is truly cured, it certainly has less Sulphur in it than any Welch-coal or Culme; and therefore the Drink made from such Malt may be used much sooner than that from Coal or Culme, which requires at least nine or twelve Months age, to overcome the sulphureous Tang of such Malt. Yet is this Coak also used by many to brew their *October* or keeping Strong-beer with, as an excellent Fuel, as was proved by its effect in the Butt-pale-beer, sold at the *Half-moon* in *Warminster*, which was the finest I tasted upon that Road, and frequently sent to *London* for Presents, being brewed with a hard Water, of a white Maumy Rock, that on Tasting, seemed to me more Brisk and Spirituous than any I ever drank; which, I think, is easily accounted

Of Fuels for drying the several Sorts of Malt. 13

accounted for: For upon Examining into the Nature of this Earth, I understood it to be a strong Sort of Chalk, well stored with Alcalious salts, which consequently gave the Water a superiour Strength, as it did the lean, white, yellow, and red, sandy Land, it was laid on; for with this same Maum (not Marley) they dress and manure their Ground many Miles about this Place, and are forced for this purpose, to dig it out of Pits, and not out of narrow Places like Wells, as we do the soft Chalk, because this Sort is too brittle for such Confinement; and out of these Pits they take great Pieces, that they carry into the Fields, where they break it small with a Sledge, and, after a frosty Winter, it becomes so fine, as to mix with the Earth; and so enriches it, that for ten Years together, there needs no other assistance; it being a Rule here, that the harder the Maum, the stronger Nature it is of, and then it's thought to do double the Service of soft Chalk. In short, Coal by many is preferr'd to Welch-coal or Culme, by reason it is less prejudicial to the Liquor; for the less Tang it has the more agreeable it is to the Palate.

Welch-Coal, Culme, or Stone-Coal.

By all these Names this Fuel is known in diverse Parts, and though it comes only out of *Pembrokeshire*, yet is there a great Difference in its Nature. One Sort, on holding a Piece against the Sun, will appear in shining golden Streaks, occasioned by the greater quantity of Sulphur, that its impregnated with more than others, and less of the Bitumen or pitch Part; so that this is said not to smoke at all, and therefore makes the finest of Pale Malt; whereas all other Sorts that appear of a solid, shining, jetty Black will smoke more or less. This Coal or Culme is dug up at *Milford*, *Haverford-west*, *Tenby*, and other Places in the County of *Pembrok*: But none is so much in esteem as the golden streaked Coal of *Tenby*, which is endowed with so much Sulphur, that in the Ships that come from thence, they can hardly bear the Room it's burnt in, and at *Bristol* is sold for 8 *d.* a Bushel, where they

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they are in no small concern for this Sort of Coal, because its great Usefulness has of late encouraged them to dig so much out, that their Mines at this Place are almost exhausted, and which in a few Years they are like to sustain the loss of. At a famous Town in the *West* for brewing Beer, they burn this Welch-coal in a moveable Iron Grate with four Wheels of about six Inches Diameter each, called there a Waggon, being eighteen Inches high, as much over, and three Foot long, to wheel out when they turn the Malt on the Kiln, lest the Brimstone Vapour of the Fire suffocate the Workman. In this County they distinguish one Sort from the other, by calling the biggest Stone-coal, and the smaller Culme, which latter many in *Wales* work up with Clay and Water, to the bigness of a Cannon-Ball, and then it will burn in Grates, but the Stone-coal will not without some Cover to keep it from the Light.

Wheat Straw.

This Fuel though it is one of the most ancient Sorts, still keeps its Reputation, so that when it is in due Order and managed by a skilful Hand, none exceeds it for drying of both pale and brown Malt, for Brewing either Ales or Strong-beers: Because, I suppose Wheat-straw to be in a thorough dry Condition when it is used, and a Fuel the most free of Salts and Sulphur of all others; as is plain from its Ashes, which are the least efficacious of all others, when laid on Meadow or ploughed Ground, as I have duly proved. From hence it is that the Smoke of this sweet Fuel is so little prejudicial to the Malt, and I must own, that in all my Travels, I never tasted any Malt-Liquor more Pleasant than that dried with Wheat-straw, which when rightly imployed, free of Weeds, under a Free-stone Kiln in particular, is inferiour to none; as it is commonly done at *Lavington* in *Wilts*, and other Places. But this delicate Fuel, is refused by many for two reasons; First, because it is somewhat dearer than some other Sorts; Secondly, because it requires the Care of two Men to a Kiln;

Kiln; for here the Fireman is obliged to give such close Attendance, that he cannot leave his Place to turn the Malt; whereas, with Wood, Coak, or Coal Fuels, the Fireman can do both. Which leads me to take Notice of what, in my humble Opinion, is a Mismanagement in some Brewers, who for cheapness sake will buy Wood-dried brown Malt, commonly made on Kilns without a Hair-cloth, for brewing the common Butt Brown-beers, sometimes at 16 s. per Quarter, when the Pale sort is at 22 s. or 24 s. As believing the smokey Tang, by Time and the great Quantity of Hops, will be overcome. But I have known many Instances, where the Hop has overcome such Drink by the Smallness of its Body. And no wonder such blood-red Beer has more Colour than Strength, since the Brewer, by the low Price he will have the Malt at, forces the Maltster to make it accordingly; and then he so blows up Kernells by the Vehemency of the Fire, that by that and the Help of the Malt Tails, he fills the Bushel with a great deal of Show and little good Malt; Insomuch, that I have heard of a Maltster who gave 30 s. a Quarter for his Barley, and sold his brown Malt at but 25 s. by means of the great Increase he was this way obliged to make, to ballance the Brewer's low Price. For it's a common saying, that there is brought to *London*, the worst of Brown Malt, and the best of Pale.

C H A P V.

Of the Great Common Brewhouse.

THE Improvement which has been made of late Years in this Brewhouse are many, insomuch that four Men's work may be done by two, and as well, as I shall make appear by the following Discourse; and first of the Situation and Building of a Brewhouse. This in its full

full conveniency is certainly of great Importance toward obtaining good Malt-Liquors; for this purpose, where it is to be erected independent of any other Building, in my humble Opinion, three Sides in four of its upper Part or second Floor, should be built with wooden Battons about three Inches broad, and two thick, according to the present *London Mode*; which by its many vacant square Holes admits sufficient Air, and seldom too much Sun, so that the Backs or Coolers by this means have a quick Opportunity to cool a thin laid Wort; especially, if the Wall farther side stands to the *South-west*, where the Copper is to be fix'd with an Arm near the Bottom of the same, and a large Brass-cock at its End, to discharge with expedition hot Water into the Mash-tun, and Wort into the Coolers. For this purpose, its Bottom should stand about ten Foot above the common Level of the Street-ground, whereby is prevented in some degree the cooling of the Water and wasting of the Wort; for now the tedious ascending Motion of the Pump is avoided, and the Charge of that and Man's Labour saved. But besides the great Copper there is commonly, in a large Brewhouse, a lesser one; if the first holds twenty Barrels, the other may contain Eight: The large one for boiling brown Worts, the lesser one for Amber and Pale-Ales. In former Days, if there were two Coppers in a Brew-house, they were at such a Distance, that it might be properly said, there were two little Brewhouses near one another, which obliged the Master to have a Man to attend each Copper. But the present Contrivance excells the old one, and these two Coppers are now so erected that each Fire-place is within Foot of one another; so that one Stoker supplies the two Fires and Coppers, which saves the Wages of one Man, that usually amounted to near 30*l.* a Year; besides having them now under a more immediate Inspection of the Workman Brewer.

The second Improvement that has been made is also of considerable Service, and that is by grinding the Malt directly into the Mash-tun; which is performed by the help

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Help of a long descending wooden close square Spout or Gutter, that immediately receives it from the high fix'd Mill-stones, and conveys it into a cover'd Mash-tun, that thus effectually secures the light Flower of the Malt from any Waste at all. Whereas, formerly they used to grind it into a great square boarded Place, which lay lower than the Mash-tun, commonly called a Case or Bin: From hence it was taken out with two Baskets and put into the Mash-tun, to the Loss of some Quantity of the finest Flower of the Malt, that would fly away and make a Lodgment on the Men's Cloaths, and the adjacent Places. But now the Charge of building and repairing the square Case is altogether saved, its Room put to some other service, the Expence of Ropes and Pullies sunk, and the two Men's time converted to other necessary Uses in the Brewhouse.

The third Improvement is the Water-pumps. These formerly were erected in a Brewhouse for the convenient Conveyance of Water out of the Receivoir and Well; the Former for the New-River, and the Latter for Spring-Water. They were work'd with long Iron Pendant-handles with a large Knob of Lead fix'd to their Bottom ends for the greater Ease of Men's Labour: But the present Contrivance works both these Pumps with more expedition by a single Horse put into the Malt-mill, and that in as true a Manner as any Men whatsoever; which saves great part of a Man's Wages.

The fourth Improvement is by the Wort-pump. This used to be work'd with a long Iron-handle as the Water Pump was, but is now likewise supplied by the Horse-mill in the same Manner that is, and will with great Expedition throw up the Worts out of the Underback into the Copper.

The fifth Improvement relates to the Backs or Coolers, which are certainly more conveniently placed in a great Brewhouse, than in the private or small one; because in many of the former, they have full room to lay them on a single Stage or Story. To each of these is fastened a Leaden-pipe about an Inch or two Bore, with a Brass-

Cock at the End, that discharges the Wort at pleasure into a square or round Tun; besides which is also another Hole about four Inches Diameter, fill'd with a wooden Plug, whose Use is to let out the Dregs swept through it into a Tub under the same, to be strain'd by a Flannel-Bag fastened to a Barrel-Hoop, and the clear Wort thus strained is mixed with the Rest. This leads me to observe the Misfortune that I have seen some labour under, who being confined to a narrow Space of Ground, run into Brewings of great Quantities of Drink, which obliges them to build three Stages of Backs one over another, that often occasions their Worts to Fox, or Damage in some degree, by the long Heats the under one sends upwards, so that the flat Planks are made hot both at Bottom and Top, and thereby deprived of one of the principal Conveniencies in Brewing, a due Freedom of Air, which a single Stage seldom ever wants. By means of the Copper Arm, the Worts now run swiftly into a single Teer of Backs, that formerly used first to be emptied by a Pump placed in the Copper, and thrown up into a little Back, just over it, from whence it ran out into the great Backs; and if there were one or two Teer more, the Wort was convey'd into the same by a small wooden Pump placed in the Copper-Back. This better Management saves the Loss of a great deal of Time, Waste, and Men's Labour. These Improvements, and many others that I am sensible of, rais'd my surprize to see several great common Brewers in some of the *Eastern* Parts of *England*, brew ten Quarters of Malt or more at a Time in a Mash-tun, placed almost close to the Ground, the under Back deep in it, expos'd to the Fall of Dirts, drowning of Insects, and other Foulnesses. The open Copper also a little above the common Level of the Earth, the Coolers in a proportionable Lowness. And to make up a compleat Mismanagement, They Brew most of their Four-penny Ales after their Six-penny Beers: So that you can have no mild Drink here, but what tastes of the earthy Parts of the Malt and Hops to such a Degree that I was commonly forced to be at an extravagant Charge, and

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C H A P. VI.

Of the Private Brewhouse.

BY this Name, I would be understood to mean all such Places that are occupied and set apart for Brewing Malt-Liquors, for Tradesmen, Gentlemen, and Others, own particular Uses. A matter of Pleasure, and Profit enough in my humble Opinion to induce an *Englishman* to love the Production of his own Country, and prefer it to those of Foreigners; because by this Opportunity every one may be Master of his own Fancy, have his Utensils in the best Manner he thinks fit, chuse his own Malt, brew when he will, and what Sort he likes best. Here he may enjoy his leisure Workings and light Fermentations; in short he may here act the absolute Governour, and brew his Drink after the best Rules and Instructions. And when Malt-Liquors are thus made according to the newest Improvements, in my Opinion there will be less Cause than ever of gratifying our Palates with adulterated Wines, at the Risque of our Healths and Expence of our Pockets. In order then to come by such salubrious Drink, it is truly necessary in the very first Place to be Master of a convenient Brewhouse; for without this, it is but a lost Attempt to get right Malt-Liquors. And here the Case admits of two Suppositions; First, whether such a one is to be had by Choice; or, Secondly, of Necessity: If by the First, then the *Northern* Part claims the Preference for Shade and Coolness, that are of Importance in this Affair; but if by Necessity, then the Case allows of no dispute: However, where it so happens, that the Brew-house can be near the Cellar, it will save a great deal of Time, Charge and Labour; because then the Drinks are

sooner, easier, and safer convey'd into it; but more where it can be carried by the Leather-pipe from the Tun, Cooler, or Starting-tub into the Cask; as is now done by some of the abler Sort.

And observe that the Arm and Cock are not confin'd altogether to a raised Copper in a great Brewhouse; for in a Private one, this is also absolutely necessary, even though the Copper is confined to stand as near the Ground as possible; because both the hot Water and Worts may be drawn off quicker, and safer from any Danger of Scalding and Wetting, that the common plain Copper very much exposes a Person to, who is obliged to empty by Scoop, Pail, or Hand-bowl; which is a Conveniency of no small Moment, if we consider the many Disasters that have befallen this hazardous Method; besides the Time, Wear and Tear, which are here likewise saved.

In private Brewhouses, there is seldom room enough to be had for those necessary Conveniencies, Square-backs; or, if there is, the Charge is often grudged, or at least can't be afforded; but where it can, it is wrong to want them, because these are the chief Securities against fox'd, sour, and foul Malt-Liquors; for here it is that the Sediments must be first left behind, and the Worts cooled at discretion; for it is certain that the shallow Back can discharge the Wort finer than the Tub, as being fixed in its Place and never disturbed while the Worts are running off; whereas Tubs must be moved to pour the Drink clear from the Bottoms, or else the Hand-bowl must be gently used, which in some degree will likewise disturb some Part of the gross Fæces or Bottoms. These Backs in the great *London* Brewhouses are generally made with the Heart of Oak; but in most Country Towns, they make them of Deal or some of the aquatick Woods at an easy Price. But then, as I said before, these Coolers are of but little Service where they are placed too close to one another, because one heats the other, and often chars the Wort; as I and many others have too much reason to complain of: For when I travelled the Road in 1737, at several Towns, I could have no other than foxed Ale, and thick unwholesome

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unwholesome Stale Beers, which made me ask a great Inn-keeper, who was his own Brewer, why his Malt-Liquors were in such a bad State? His Answer was, that all the Summer Time it was commonly so, but good in Winter. This induced me to inspect his Brewhouse, where I found his Copper, Mash-tun, and Coolers, as near as they could be together; his Underback or Receiver deep in the Ground, and Part of it in the Way of the Dirt of Shoes and other Nastiness to fall into; his two square Coolers fixed about eighteen Inches one above the other, and all in a small narrow Place; so that this Person was seldom or never clear of fox'd or prick'd Drinks in some degree: Though in Winter his Ignorance made him believe they were sound brewed, because the Taint was then not so much as in Summer.

The Mash-tun here should be as smooth withinside as if it was turned; because such an Utensil is not so apt to Furr as another made out of a large Wine-cask, whose Staves being uneven withinside, give room for a Lodgment of the Remains of Worts, which fail not to become of an Acid Nature and corrupt the next pure Worts, if not thoroughly eradicated. And indeed all Tubs, Pails, and Jetts, used in brewing, should be of the smooth Sort. Of this, some are so curiously Nice, that if by accident one of them happen to be dipt into cold Water, they will scald it a-new, and dry it before it is made use of. This small Mash-tun has several Forms belonging to it for discharging its raw Worts into the Receiver or Underback. One is by a Cock fastened in the Bottom, over which is another called a false Bottom, and is the best Way of all others; because by this, you may spend off the Wort very easy, safe and fine, free of any Danger from the Stoppage of Malt. The Second is by a Brass-cock, fixed in the Side near the Bottom to a Tapp-wipps withinside. The Third is by a long wooden upright Plug, surrounded by a high Basket Strainer that stands almost in the Middle of the Bottom. The Fourth and last Way I think a bad one indeed, and that is done by a Spiggot and Foffet, which I have seen many use: Here
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when they draw off the Wort from the Malt, they put a Birchen Twig into the Tap to adjust the Stream; but sometimes the Weight of the Wort forces out the Spiggot, and then the Current alters, to the Fouling of the Wort; to stop which the Fingers must be employed to put in the Twig tighter, and so expose them to a second Scalding.

The Floor of either a great or small Brewhouse is justly deserving of some consideration, as it is always more or less serviceable by its good or bad Condition; for this like a Dairy-Room, should have all the propitious Allowances given it that can be, towards keeping it dry, sweet, and cool; and therefore such a Floor should always be laid somewhat higher than the common Level of the Ground; or with such a gradual Declination, as may bring away all Wetts and Slops, that consequently must often happen in such a Brewhouse; for if it was otherwise, and Water and Worts were permitted to make Lodgments in Holes or hollow Places, there must in course be produced corrupt and foul Puddles, whose ill Scents and nasty Daubings are always ready to affect and damage the Utensils and Worts. For this Reason, all boarded and planked Floors are to be rejected, as they are oblig'd to be laid hollow on Joysts and Sleepers, that will surely rot them in a little Time, and create unwholesome Stinks and Vapours; besides the great Danger that attends such a wooden Floor in it's Slipperiness when wetted, that exposes a Person to Falls as he is carrying scalding Worts or Water; and also when two Men may be under the heavy Burden of a Barrel of Drink on the Slings, that weighs near 400 Pounds, which may occasion the Loss of their Lives. An Instance of this Folly, I knew once happen to a common Brewer in *London*, who thought it the cheapest way to have a boarded Floor in his Brewhouse, and accordingly bought *Oaken Ship-Planks* at *Chelsea*, for that purpose; but the Consequence was, that in a little Time he repented himself of his Mistake, and had it laid with the broad Portland Stone.

C H A P. VII.

Brewing a Butt of pale Strong-Beer, by an Innkeeper.

I HAVE my Malt just broke in Grinding, to prevent my having foul Drink by the Mixture of its fine Flower in too great a Quantity, which I let stand in Sacks by the Mash-tun side, ready to be put in after the Water that is now heating in a Copper, holding a Hogshead and a Firkin under a close Wooden-cover to keep in the Steam, where it is to continue till it is ready to boil. In this condition, a Hogshead of it must be put immediately into the Mash-tun, and, as soon as possible, a Pail of cold Water in that, to qualify it, (though most others venture to mix this tough Malt with it in a boiling Heat) for receiving ten Bushels of Malt, that I put in very leasurely, whilst a second Person stirs it with an Oar or Paddle, as it runs out of the Sack, without any further mashing throughout the Brewing of Strong-Beer or Ale. Then immediately, with my Oar, I make room about the Basket upright Strainer for the sifted hully Part of one Bushel more of Malt, which I lay round it as close as I can; and, the Flower thereof, I spread over the Top, besides a single Bushel of Wheat-Bran over all that; here it is to remain three Hours in Winter, and two in Summer. At this Time, I have a Firkin of hot Water left in my Copper, to which I add a Barrel of cold to make it up forty-five Gallons: This I heat away, and make it just ready to boil against my first Wort comes off the Goods; which when it is fit to do, I loosen my Plug and spend it off by a small Stream on one Pound of rubbed Hops, returning first what comes foul till it runs clear: Then I make use of my hot Water in the Copper, and leak it over the Goods by a Jett, or three Hand-bowls at a Time, letting that almost go off before I put on more; and so continue till I have a Hogshead and

24 *Brewing a Butt of pale Strong-Beer, &c.*

and six Gallons of Wort, which will about empty my Copper; for in this Case, I allow near a third Part of the Water's being drunk up by the Malt never to be returned, and sometimes more than the Waste of one eighth Part for the Worts boiling away. As soon as this is done, I rub three Pounds of Hops more, with near a Quarter of an Ounce of Salt of Tartar, and throw all into the Copper. At this Time I have another Copper, that holds a Barrel of Water, now boiling hot, which I lade over the Goods by degrees as before, 'till I got a second Wort off for making me half a Hogshead of Ale, that I sell within Doors for Four-pence a Quart. In the mean Time, I boil my Copper of first Wort, 'till all the Hops sink, which is the Sign of its being enough, without staying for the Wort's breaking or curdling; accordingly I strain it, and let it lie very shallow in Coolers. By this Time, I receive a Barrel of second Wort off, having here as much Wort returned as the Water that went in. This I boil with all the Hops that came out of the First, till it breaks, and then strain it into Coolers; observing to supply the Grains with a Hogshead of cold Water as soon as the second Wort comes off; which after it is soundly mashed, and has lain three Quarters of an Hour, I draw off, and boil it without any Hops a Quarter of an Hour; then I discharge it into my Coolers, to be heated next Morning and used instead of the first Water, which is call'd Doubling, for Brewing eleven Bushels more of Malt in the same Manner the last was done; only with this Difference, that when at last I mash up with cold Water for Small-Beer, I put only so much on as will bring me off thirty-four Gallons, for making me half a Hogshead in my little Copper, with the Hops that I us'd before.

Observations on the same.

The common Method of having but one Copper to one Mash-tun, has too often proved the Inconveniency of it by the bad Effects of Beers and Ales made from the same,

ame, which are often in Summer especially, prick'd or
four'd on the Grains, by the Length of Time they are
obliged to allow for the several Mashings and Soakings of
the Malt or Goods in the hot Waters; and if the Misfor-
tune seldom amounts to this Degree of Damage, yet, it
frequently happens that the Wort, less or more, is in an
unhealthy and unpleasant Condition; which to avoid, I
would advise every one that has a Conveniency to have
two Coppers to one Mash-tun. In this Case I address
my self to all except the great Brewer, who, though in
my humble Opinion he has most need of it, yet by long
Custom being used to his single Utensils, I can hardly
suppose he will alter; But I hope some of the smaller sort
will have regard to this Item, as a Method that certainly
must be very useful, in giving them an Opportunity to
enjoy a fine sweet Wort: For its generally allowed, if the
Wort goes into the Copper in a bad State, it will come
out so, and never receive a true Cure, as being damaged
in its first and best Condition. Now whether the Tun has
a false Bottom, or a Basket and Plug, or a Brass-cock
near the Bottom; the Form hinders nothing of this Be-
nefit: For if you brew with the false Bottom, by Mash-
ings and not Leakings over, then as soon as your first
Wort is spent off into the Underback or Receiver, you
are to run off your hot Water out of your Copper into the
Mash-tun for a second Wort; and directly get the first
Wort into the same to boil: Now as this your second Wort
will come off the Goods, half an Hour at least, before the
First is ready to go into the Coolers, here happens too
great a Vacation of Time, that may chance to prejudice
it, by thus being necessitated to let it lye out of the Cop-
per so long, which a second Copper prevents by receiving
and boiling it away directly. And as to the Mash-tun,
that discharges its Wort by Plug or Cock without a false
Bottom, this second Copper is rather more serviceable,
because your first Wort commonly lying two or three Hours
with the Malt, part of the same Copper which follows
will be expended in Leakings over to make a compleat Cop-
per of the first Sort: Then if you have but one Copper,

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26 *Brewing a Butt of pale Strong-Beer, &c.*

there can be no hot Water made ready as it should be for a second Wort, 'till the first is boiled off, and that will take up near two Hours; all which time the Goods must lie idle, and very likely prick or sour. Otherwise, you must hop the first Wort, and put it by into Tubs till the second is boiled, which will consequently by this lose some of the Hop's Spirit, and the purer softer Part of the Wort, &c. But if you have a second Copper of hot Water ready, when the first Wort is put into the first Copper, the Danger of these Misfortunes will be entirely avoided.

Secondly, The Heat of the Water, as I have more amply remarked in my two former Treatises on Brewing, should be in a greater Degree for Pale than Amber and brown Malts.

Thirdly, The Mashings also, for reasons I have formerly assigned, should be as little as possible, so as the Malt is kept from Balling.

Fourthly, The Steam of the Water should be kept in, as I have before accounted for.

Fifthly, The putting the hully Part of a Bushel of Malt round the Basket, is what never was exposed in Print before, though it is an excellent Way towards obtaining a fine Current of Wort, that gives a Benefit to the Liquor, even to the last.

Sixthly, The Rubbing of the Hops with Salt of Tartar is likewise a new Method of great service, in forcing the oily Part of the Hop to emit its viscid Quality, and expeditiously join in contact with that of the Wort: For by this, the fine flowery Part of it may be obtained, clear of the earthy Phlegmatick, which long boiling never fails of extracting, to the great prejudice of the Beer and its Drinker's Health. A Proof of it is evident from the smooth pleasant Taste that such Malt-Liquor receives from this Management, and which of late is in such esteem, that I know a Collector of the Customs, who boils his Hops but five Minutes, which certainly would be too little a While to get a sufficient Tincture from them, was it not for the penetrating and attenuating Nature of this Salt, whose Vertue is not only valuable on this account, but

also

also for fining and preserving the Drink afterwards. And though the common Criterion or Sign of the Wort and Hops being boiled enough, is by this Innkeeper and many others observed to be when the Hops all sink ; yet I think he is wrong in not boiling the Wort longer than the Hops, because I am sure the Drink won't be so soon fine in the Barrel, as that boiled till it breaks or curdles.

Seventhly, As to the boiling a Hogshead of small Wort at last, to serve as the first Water or Liquor to be used in the succeeding Brewing, the same or next Day, it is a good way ; because it adds to the Strength of the next Liquor, and conduces to preserve it sound the longer. But before I conclude these Observations, I must take Notice of an egregious Abuse that this Innkeeper and most others are guilty of, by brewing their common Ale from the Goods of the first Wort ; a Misfortune that is mostly known to Travellers by woful experience : For in many Parts of the Nation, there is no other mild Sort to be had, and then a Man is obliged to swallow so much Dirt of the Malt and Hops, that he must have a strong Constitution to overcome its dire Effects. — So also with the same Reason I observe, that when these Butt-Beers are loaded with Hops, without a sufficient Strength in the Drink to sheathe their acrimonious Points ; such Liquor I say must consequently be very injurious to weak Constitutions, whose Stomachs are less able to bear their Sharpness ; and what is worse, It must go very hard with such, when, on a Road, they are so unfortunate as to be confin'd to such Liquor in a Publick-House, which perhaps is the only one in the Village.

28 *Brewing a Hoghead and a Half of Pale-Ale*

C H A P. VIII.

*Brewing a Hoghead and a Half of Pale-Ale
from fresh Malt, by a private Person.*

AS my Copper holds a Hoghead and a Firkin, and I am to brew twelve Bushels of Malt, I charge it full of Spring-Water, which I heat till it is just ready to boil, but not boil: This I put into my Mash-tun, and run ten Bushels of Malt very leasurely on the same, keeping it all the while stir'd by a second Person; which when it is sufficiently done, I cap with the eleventh Bushel, and let it stand while I get another Copper full of boiling Water as fast as I can; twenty-four Gallons of which I put into my Tun and mash up, covering all with the twelfth Bushel. Then I immediately add eighteen Gallons of cold Water to thirty-nine of hot left in the Copper, and get it into a boiling Heat against all my first Wort comes off; which after it has stood two Hours, I spend away, and boil it with two Pound of Hops, (first well rubb'd) in a roomly Canvas or such as they call straining Cloth; and at the end of thirty Minutes after it has begun to boil, I take them out, continuing the Ebullition till the Wort breaks enough, when I directly empty it into Coolers, and there have about forty-two Gallons. By this time, my second Wort is ready to go into the Copper, that I made by mashing up my Goods with the fifty-seven Gallons of boiling Water, and letting it stand three Quarters of an Hour before I discharged it. This I boil away with two Pound more of fresh Hops in the Canvas Bag, in all respects as I did my first Wort, and so receive off forty-nine Gallons, which with thirty-seven I had before, makes me eighty-six, that will (allowing for after Wastes) be about a Hoghead and a Half of Ale: And last of all, I mash up with thirty-six Gallons of cold Water to stand three Quarters of an Hour; and then I boil it with all my Strong-drink

Strong-drink Hops, about an Hour and a Half, till I have about twenty-seven Gallons or half a Hoghead off for Small-Beer.

Observations on the same.

We may observe, that the Author of this Receipt is of Opinion, that the Water is hotter and more capable of extracting the Vertue of Pale Malt before it boils than after. For in this condition, he says, it is more loaded with igneous Particles than when raised to the State of boiling, whereby its Parts are more broke and divided, and so become more open to evaporate the Particles aforesaid, and admit too much of the circumambient Air, which must consequently render it cooler than before such Ebullition commenced. And further to prove this Assertion, if you do but just dip your Finger into Water, just before it boils, it will blister, but when boiling it will not.

Secondly, He here caps his Malt twice, the better to further the Business in hand, by confining the Heat or Steam, and is a good Way.

Thirdly, His boiling the Hops in a Canvas, must certainly give him the Satisfaction and Benefit of adjusting the time of such Ebullition, and also by it enjoy the great Advantage of boiling the Wort till it breaks or curdles.

Fourthly, But above all, he brews his Ale from Malt, and not from Goods, which must certainly load such Drink with the pure Saccharine Juice and lively Particles of the Grain, which are here obtained in their natural Order: On the Contrary, that Ale which is made only from Goods (*i. e.* after a first Wort is run off the Malt) must consequently be unpleasant and unwholesome as I have before remarked,

30 *To make China-Ale, and several other Sorts,*

C H A P. IX.

To make China-Ale, and several other Sorts.

TO six Gallons of Ale, take a Quarter of a Pound or more of China-root thin sliced, and a Quarter of a Pound of Coriander-Seed bruised; hang these in a Tiffany or coarse Linnen-bag in the Vessel, till it has done working, and let it stand fourteen Days before you bottle it; tho' the common Sort vended about Town, is nothing more (at best) than Ten Shilling Beer, put up in small stone Bottles, with a little Spice, Lemmon-peel, and Raisins or Sugar.

To make an Ale that will taste like Apricot-Ale.

Take to every Gallon of Ale, one Ounce and a half of Wild Carrot-seed bruised a little, and hang them in a Linnen-bag in your Barrel till it is ready to drink, which will be in three Weeks; then bottle it with a little Sugar in every Bottle.

Egg Ale.

Take to twelve Gallons of strong Ale, eight Pounds of lean Beef, which must be cut into little Bits and half stewed with a little Water; and when it is cold, let the Gravy be put into the Vessel of Ale, the Fat being blown off; then let the Beef with twelve Eggs, their Shells being only bruised, but the Films not broken, a Pound of Raisins of the Sun stoned, two Nutmegs, a little Mace and Ginger, and two Oranges cut round, be put into a Linnen-Bag, and hang it in the Barrel before it has done working; put in also two Quarts of Malaga-Sack, and stop it up; let it stand three Weeks; then bottle it, and into every Bottle put a Clove and a Lump of Sugar,

Cowslip Ale.

Take to a Barrel of Ale, a Bushel of the Flowers of Cowslips pick'd out of the Husks, and put them into
your

To make China-Ale, and several other Sorts. 31

your Ale, when it hath done working, loose in the Barrel without bruising, and let it stand a Fortnight before you bottle it, and when you bottle it, put a Lump of Sugar in each Bottle.

Blackberry-Ale.

Take two Bushels of Malt, and make it into Strong-Ale, allowing a Quarter of a Pound of Hops to it; when the Wort is cold enough, put it up into your Vessel with a little Yeast, and the Juice of three Quarters of a Peck of Blackberries full ripe, and ferment them all together; when it has work'd sufficiently, stop it up close, and at six Weeks End you may bottle it, and in a Fortnight after, it will be fit to drink.

Cock-Ale.

Take a Cock of half a Year old, kill him and truss him well; and put into a Cask twelve Gallons of Ale, to which add four Pound of Raisins of the Sun well pick'd, ston'd, wash'd and dry'd; Dates sliced half a Pound; Nutmegs and Mace two Ounces: Infuse the Dates and Spices in a Quart of Canary twenty-four Hours, then boil the Cock in a Manner to a Jelly, till a Gallon of Water is reduced to two Quarts; then press the Body of him extreemly well, and put the Liquor into the Cask where the Ale is, with the Spices and Fruit, adding a few Blades of Mace; then put to it half a Pint of new Ale Yeast, and let it work well for a Day, and in two Days, you may broach it for Use; or, in hot Weather the second Day; and if it proves too strong, you may add more plain Ale to palliate this restorative Drink, which contributes much to the invigorating of Nature.

Elderberry Beer.

Take a Hoghead of the first and strongest Wort, and boil in the same one Bushel of pick'd Elderberries full ripe,

ripe, strain off, and when cold work the Liquor in the Hogshead, and not in an open Tun or Tub; and after it has lain in the Cask about a Year, bottle it and it will be a most rich Drink, that they call Ebulum, and has been often prefer'd to Port-Wine, for its pleasant Taste and healthful Quality. — *N. B.* There is no occasion for the Use of Sugar in this Undertaking; because, the Wort has Strength and Sweetness enough in its self to answer that end; but there should be an Infusion of Hops added to the Liquor, by way of preservation and relish. Some likewise, hang a small Bag of bruised Spices in the Vessel. You may make a white Ebulum with Pale Malt and white Elderberries.



C H A P. X.

Devonshire White-Ale.

THIS Ale that I have just hinted of in my first Part, I shall here write a further Account of, in order to set forth its Excellency, and pave a Way for its general Reception in the World. To this end I write with an eager Pen, by the Inducement of the best Qualities belonging to a Publick Liquor, *viz.* Pleasure and Health. About sixty Years ago (as far as I can learn) this Drink was first invented at, or near the Town of *Plymouth*, that lies on the Outside of *Devonshire* next *Cornwall*; A Place with its Dock so populous, that it was thought to contain near as many Inhabitants as the City of *Exeter*, though that had fourteen Parishes, this but two, and the Dock part of a Third; rich in War and poor in Peace; for when Trade was most flourishing in Queen *Ann's* Time, there were above six Goldsmiths Shops in it, well furnished. This Liquor is brewed from Pale Malt, after the best Method known in the Western Parts of this County; and as it is drank at *Plymouth*, in particular by the best of that Town, the

Alewives

Alewives, whose Province this commonly falls under to manage from the Beginning to the End, are most of them as curious in their brewing it, as the Dairy-Woman in making her Butter; for as it is a White Ale, it is soon sullied by Dirt, and as easily preserved in its frothy Head: Besides, here their Sluttishness would be more exposed, perhaps, than in any other Place in *England*; because, in this Town there are few or no Cellars, on account of their Stony Foundation which is all Marble: And therefore their Repositories being above Ground, are generally exposed to the View of their Guests, who may passingly see this Liquor fermenting in a Row of earthen Steens, holding about five or more Gallons each: And, though the Wort is brewed by the Hostels, the Fermentation is brought on by the Purchase of what they call Ripening, or a Composition (as some say) of the Flower of Malt mixed with the Whites of Eggs: But as this is a *Nostrum* known but to few, it is only guessing at the Matter; for about thirty Years ago, as I am informed, there were only two or three Masters of the Secret, who sold it out as we sell Yeast, at so much for a certain Quantity; and that every time a new Brewing of this Sort of Ale happened: A great Ball or Lump of it was generally sufficient to work four or five Steens of Wort, and convert it from a very clear Body into a thick Fermenting one, near the Colour and Consistence of Butter'd-Ale, and then it was only fit to be used; for if it was let alone to be fine or stale, it was rejected as not worthy of buying and drinking. Yet some out of Curiosity have kept it in Bottles, rack'd it off clear, and made of it Flip and other Compositions very good. Now this White Ale being thus fermented into such a gross Body, becomes a Sort of Chyle ready prepared for Digestion in the Stomach, and yet so Liquid as to pass the several Secretary Ducts of the Animal System soon enough to give room for new Supplies of this pleasant Tipple, even at one common Sitting in a Publick House: For though this Drink is not so thin and clear as the brown Sorts, yet by its new, lubricous slippery Parts, it is soon discharged out of the Stomach; and notwith-

standing such Evacuations, it leaves a very nutritious Quality behind it in the Body, that brings it under a just Reputation for preventing and recovering those who are not too far gone in Consumptions; and therefore would be of extraordinary Service to labouring People: In short, this famous Liquor is of such a salubrious Nature, as renders it a most agreeable Drink both to the sedentary and active Person; which plainly shows the transcendent Quality peculiar to this White-Ale, beyond all other Malt Liquors whatsoever: For who dare, nay who can make so free with any new Beer or Ale, while it is under Fermentation, as with this, and that by Reason of the poisonous Quality of the Yeast, and the fulsome, nauseating, unwholesome Nature, that such working Drinks are endowed with; whereas this invites one to drink it as fast as any of the common brown or pale Ales, and at the same Time administers to the Body such medicinal Assistance, that no other Malt Drink, Wine, nor any other potable Liquor now in Use, as I know of, comes up to it, not only for the aforesaid Intention, but it is likewise usually prescribed by Physicians, as a Remedy in the Cholick and Gravel by its lubricating, diuretick Nature; and tis the best Liquor in the World for a wet Nurse to drink for increasing a most nourishing Milk. Its strength also is so great, that though it is drank while working, it is as intoxicating as the common Ales or Beers; for by the Time a Man has drank a Quart or two to his Share, he will find it enough to go off with; and if any one thinks fit to make it stronger, (as is often done) it is only adding half a Pint of Sherry with a little Loaf-Sugar and Nutmeg, and then it will not only be strong, but very pleasant; and sometimes entertaining to a Fault; insomuch, that several have been inticed by its luscious, stimulating Taste, and cordial Quality, to a degree of Extravagance, by their too frequent Expence of Money and Time in the Enjoyment of this delicate improv'd Ale. — To all which, I shall add the Opinion of an experienced Physician who has drank of it, *viz.* I take the *Devonshire White-Ale* to be a very pleasant nutritive Liquor, and well fitted to pass the several Secretions of the

A Scheme for Brewing, &c. 35

the Humane Body; not only by its consisting of such rarify'd adhæfive Particles from the Saccharine Juice of the Vegetable, but its being drank in a particularly agreeable, brisk, and smooth State, in Taste not unlike our first Nutriment, which certainly renders it easy of Concoction in the Stomach, and being moderately taken, it may justly claim a Place in the first Class of dieterick Restoratives.



C H A P. XI.

A Scheme for Brewing strong Malt-Liquors after a new improved Method.

PROCURE a strong, sound, fine Wort, by using good Straw-dried Amber-Malt, just broke; pure, soft, running, or rain Water, in a right Degree of Heat, that is, just before it boils, and stirr'd together no more than is absolutely necessary to keep from Balling, letting it stand under a Cover of fresh Malt its due time in a double Mash-tun; I mean, a lesser One, put into a Larger; the Former to be exceeding smooth withinside, and to have four Feet, either fixed or moveable in the Latter, with a proper Brass-Cock, long enough in its Barrel to screw through both their Bottoms, and a Strainer to be fastned to one End every time it is us'd; or, which is better, the Inner-one to have a false Bottom as in the common Way: The Cavity or Distance between the Tuns should be from six to twelve Inches or more, according to their Size; their Tops to be of an equal Height, and to have another common Cock to fix in towards the Bottom of the outer Tun, to draw off the Water at pleasure; pouring boiling Water in so as to encompass the inner one very near as high as the Mash: Then when the Wort is let go, to receive it in a Goose-quill Stream upon good new Hops well rubb'd between the Hands, setting the

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first Wort so received with the Hops aside, continuing to lade over by Hand-bowl-fulls hot Liquor enough for a second Wort, which must be received on rubb'd Hops as before: Then strain and mix both Worts together, displaying them thin to cool; this done, receive a little of it into a clean Hand-bowl, or rather well glaz'd earthen Pan, (and indeed were earthen Ware, such as we call the Stone-sort, made use of throughout the whole Management, it would be much the better) wherein is a sufficient Quantity of good fresh Yeast, and mix them well together; this Mixture put into your Barrel, Kilderkin, or other Vessel being thoroughly sweet and dry, and let the Rest of the Wort run as fine as possible upon it, till the Vessel is full and the Whole well mixed. After a due Fermentation, put away what has work'd out, and fill up the Vessel with the Infusion of Hops, as hereafter directed, stopping it up as close as may be, excepting the Top-vent or Cork-hole, in the upright Cask where it work'd out at, over which paste a Piece of brown Cap-paper, and so let it remain, 'till upon Pegging it at discretion you observe it comes fine: Then, if you would keep it longer, have ready another Vessel of the same Size, into which rack off your Drink, and at the same Time put into it three Parts of parch'd Wheat, and one of whole malted Horse-beans freed from their Hulls, or Dumplings, made after this Manner, *viz.* Take fine Malt, Rye, and Bean-flower, (if the two last were malted, they wou'd be the better,) each equal Parts; mix them up with a strong Infusion of Hops, or some of the same Drink, into a Mass, out of which form Dumplings; then bung it very tight, and keep it in a cool Cellar for three or four Months or longer, and you'll enjoy a fine, sound, sparkling, pleasant and wholesome vinous Liquor from the Tap; or, you may then again rack and bottle it off for Use.

The Infusion of Hops,

For this Purpose it would be very proper to have a large Vessel made of Copper and well tinn'd, in the Shape of a

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Coffee-pot, wide at Bottom and narrow at Top, with a Spout in the Side, having a Strainer next to the Body, and a Screw-Top to it; likewise, a Head to screw on: Into this Pot put your Hops, being first well rubb'd between the Hands, with a little Salt of Tartar, (a Quarter of an Ounce to four Pounds of Hops,) and as much fair Water as will cover them well; Let it stand all Night cold, and the next Morning set it over a gentle Fire so as to boil up; take it off and let it stand till cold (the Tops being close screw'd all the while,) then pour off the clear Liquor, without pressure, through the Spout, which immediately pour gently into the Vessel, by the Help of a long, narrow spouted Funnel to reach down into the Drink, without much damaging the Head of it.

The Reason why I deviate from the common Way of Brewing is, that it is a justly received Maxim among the most Judicious, that the more light, pure, soft and vinous our Malt-Liquors are, so much the more are they homogenous, and better adapted to pass the several Secretions of the Humane Body, and consequently the more wholesome: Therefore this being our Business, In the first Place I observe, that long Mashing (as commonly practis'd) renders the Wort liable to several Accidents, especially, according to the Season of the Year it is perform'd in; but one more particularly of impregnating the imbib'd Liquid, with so much of the farinaceous or gruelly Part of the Malt, as not only to induce an Acidity, but likewise a Ropiness in the Drink, which I take to be owing chiefly to this erroneous Management; because it must be granted, that it is a due and regular Degree of Heat, (*cæteris paribus*) that causes the Grain to emit its Vertue; now by long Mashing, by and by the contrary Principle gets the Ascendant, and so chills and stagnates it, as to bring on this vicious Property, which, the longer it is thus kept neither hot nor cold, it is the more exposed to. Therefore, I have recommended this new Method of a double Mash-tun, whose outer Part by being filled with boiling Water as soon as the Mash is set, so facilitates the Operation by way of *Balneum Mariæ*; that before

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before the incircling Water is cold, the Wort may be let go: And in Winter especially, this must be of considerable service, because you may keep the Water in what Degree of Heat you please, by running it off as it cools, and still adding more boiling. In order to this, you should have two Coppers employ'd, to be more certain in the Heat of your Liquors, and to expedite the Performance; which is a Matter of no little Moment, seeing it is so essentially necessary in avoiding the aforesaid bad Accidents, and procuring a pure, sound, vinous Wort. Again, boiling Malt-Liquors, though so customary, (in my Opinion) frustrates our Expectation; insomuch, as it certainly hardens and thickens them, which is one chief Reason why they are commonly allotted so much Time to digest in the Vessel, in order to break and divide their cohesive mummy Particles; which are much better primarily prevented by not boiling the Wort at all, notwithstanding the common Objection, That without boiling, the Liquor will be raw and not keep: To which I answer, that the Liquor has before received due Maturation in the Copper and Mash-tun, besides the after Digestion and Rarefaction it acquires in the Vessel by Fermentation and Age. And as to its being more liable to decay; it is certainly, not the Boiling that preserves Malt-Liquors, but their Spirit, which is obvious to a mean Capacity; and could we possibly extract the Quintessence of the Malt without it, I should much rather chuse not to use any Heat. Lastly, in order to enjoy Malt-drinks, that are to be kept any Time, in a sound, fine and mellow Condition, I have found it very necessary to free them (as soon as thoroughly digested and fine in the Vessel) from their gross Sediments, or common Lee, which, from it's yeasty Particles, &c. never fails more or less to damage such Drinks, especially the pale Sorts by inducing an Acidity, and rendring them liable to fret and become foul upon Alteration of Weather; therefore a proper artificial, alcalious Composition substituted in its stead, prevents these bad Accidents, and very much preserves and meliorates the Liquor it is put into.

Examples

Examples to illustrate the great Advantage of Infusing the Hop in a close Vessel, and not boiling it in an open Copper.

By this I engage my self in an Article, hitherto omitted by all others, and yet I think it a very Capital one; by reason the first flowery Spirit of this aromattick, fine, oily Vegetable is of such an excellent Nature, that the most learned Naturalist allows it to have no *Succedaneum*; and therefore I endeavour'd to contrive a Way (that I have experienced) to confine and preserve its noble Quality entire, which cannot possibly be done, where there is an open Evaporation allowed the Hop; and though I have all along hitherto in my two former Treatises encouraged a short Boiling of fresh Hops in order to their answering this great End, yet believe me, it is only doing the Thing in part, that even then is a thousand Times preferable to the filthy, unwholesome, old Way of boiling them two or three Hours; which as I have remarked, never fails of extracting the Worser and losing the better Part of this fine Ingredient. So that this, like the best of many other Things, may be perverted; as I can prove by many Examples, of which the following shall suffice, *viz.* There is a certain Plant call'd *Daucus* or Wild-carrot, which grows plentifully in some common Fields, about knee-high, with a bunchy Head, in the Shape of an Onion in seed; and is brown good part of the Winter; the Seed of which is a Carminative, and has several other excellent Qualities; particularly two, one of a bitterish, and the other of a peachey Savour; of which Seeds take half a Pint and boil them in a Canvas-bag in a Kilderkin of Ale-Wort half an Hour, and they will not fail to give it a fine Relish, and keep it sound some time: But if you take the same Seeds at the End of that Time, and squeeze them into the Drink, there will come out an unsufferable, ill palated oily Juice, that will spoil all the Liquor it is mixed with. The same it is more or less with other Vegetables, the Hop in particular, if used after the same Manner,

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ner, or by too long boiling, and evaporating its best Part or Spirit by the Steam. Somewhat agreeable to this, is the modern Practice of preparing some Medicines from Vegetables; the Vertues of which were heretofore directed to be obtained, by decoction or boiling as in the *bitter Decoctions*, and that of *Sena*, of our old Dispensatory, but now (among other great Amendments and Improvements by the learned Faculty) they are expressly and more elegantly order'd to be infus'd.

A certain Virtuoso who once dealt pretty largely in the Distilling Business, and was noted for his Skill in Meliorating our *English Brandy*, so as to render it little inferiour to Foreign, used the following Method, *viz.* to hang a pretty large Piece of dry Florentine Orrice-Root by a Packthread, or otherwise, in the Top-Part of an Alembick, so as the boiling Liquor may not touch it, and it will give the Spirit or Water so drawn off, a fine, agreeable, Rasberry, vinous Relish and Flavour: But if you boil it in the Liquor, it will have none of this delicate Quality, but instead thereof, impregnate it with a very disagreeable, harsh, earthy Taste. So likewise, if you infuse this Root cut in Slices in a little *English Brandy* for about six or eight Hours, it will much improve it; but if any considerable time longer, it will affect it in the disagreeable Manner aforesaid.

But for a further Proof that Hops should not be boiled in Wort, but infused, I add the following demonstrative Reason. A Distiller boiled off a Brewing of strong Wort in his Still, and for an Experiment, as soon as he had put in his Hops clap'd on the Head, and there came off by the Worm only a bitter Water saturated with the pure aromack Part of the Hop.

Now as some may not have the Conveniences of using the Copper-pot with its screw Head as I have before described; such may have one made of Tin instead thereof; or I would advise you first to rub and then to put one, two, or more Pounds of Hops with the Salt of Tartar into an earthen glazed Pot, allowing

room

Room enough, and made somewhat like a Churn, broad at Bottom and narrow at Top; on these pour so much pure, soft Water as will wet and cover them well, so that a Quart may be got off each Pound, and immediately stop it up with a Cork, or some other thing to keep all the Steam so in, that none may make it escape; set it over a gentle Fire, and let it boil up; then remove it and set it by till thoroughly cold: Then pour the bitter Liquor off into the Cask as soon as it has done working, and bung it down tight directly. But here in course will arise an Objection against this Procedure, because the Hop is to be infused in hot Water and not Wort, and so must make the Drink weak and raw. To this I answer, That though I have here recommended Water rather than Wort, yet every one is at his Liberty to act as he pleases, and upon Trial, I believe, will be convinced, that pure soft Water is the best *Menstruum* or Vehicle to penetrate into, divide, and imbibe the viscid or cohesive Part of the Hop by Infusion, especially as it is assisted by the Salt of Tartar, which is a great Alkali and very wholesome; so that by thus confining the Steam of both Water and Hop in a glazed earthen, or other Vessel, the Quintessence of the Hop will have a pure Extraction as soon as cold, after the same manner that Teas are made, whereby the finest Parts of this most servicable Vegetable will be obtained, and the earthy, unwholesome Qualities left behind for the imbittering of Small-beer, or doing a good Piece of Service by giving them to a poor Neighbour; whereas if hot Wort was used instead of Water, it would not be able to receive such a strong Tincture from the Hop; because both the Hop and Wort are two oily Bodies that cannot so easily incorporate as a thinner Liquid: Nor can so much Water as a Quart to a Kilderkin of strong Drink be of any Signification, since it is loaded with the full Strength of the spirituous Hop, that, to preserve in the best manner, I put into the Barrell as soon as it has done working, and immediately bung it up in order to conserve its

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Spirit

Spirit intire, which if mixed with the Wort that is to be afterward fermented, in course there will be a great Expende of those Spirits, which may after this method be truly perserved.

*A further Account of Brewing Malt-Liquors
without Boiling.*

IN my second Book, Page 69, I largely wrote on this Article, and yet think myself under some Obligation to enlarge on the same Subject here, by further recommending this advantageous Method to the World, as being very profitable, pleasant, and wholesome. A Miller near *Chelmsford* in *Essex*, is famous for brewing his Drink after this Manner, that he makes so strong as to burn if thrown into the Fire, and is always fine. His Way is to boil the Hops in Water, and after they are strained out, he puts that Water into his Tun for the first Mash; and if he has occasion for more hot Water, he boils fresh Hops, strains them out, and puts the Liquor over the Goods, as he did the first time; because the more terrene, and feculent Parts of the Hop commonly extracted by Ebullition, are by this Method as it were filtered out, and left behind in the Grains; for there is a natural Contact between the earthy, Phlegmatick Parts of the Malt and Hops, and so *è Contrâ*, as the Salts of the Yeast sooner joyn or have a readier Contact with those of the corrupted or fermented Grain, *i. e.* Malt in Wort, than they do with Molosses, or other Bodies that have not more or less undergone a Prefermentation: After this he cools his Wort and ferments as usual, but without boiling it at all. And also in *Hertfordshire*, I know a Man that has brewed all his Drink for his own Family many Years after this Manner, with great Reputation. The same likewise I found practised at *Froome*, and some other Parts of *Somersetshire*, and is certainly an excellent Way, provided this can be done without losing any of the Hop's Spirit by Evaporation; Where-

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Wherefore instead of boiling them in an open Copper, they should be infused or boiled under such a confining Cover, as will secure their Vertue; then if they are strained out, and the Water put over the Malt, the Wort will certainly be the better; and in this Case fewer Hops will do, because their whole Strength is thus intirely preserved. Wort is better for not being boiled, because boiling thickens and hardens it; and Water also by evaporating the lighter, softer, and more pure Part. Though I can't say that any Spirit evaporates in boiling Wort; because if the Grain is so opened as to emit any Spirits in Malting, it is thoroughly lost in the watering and drying, as was fairly demonstrated by the Experiment of the Still above mentioned in the Account of infusing Hops. Also the common Objection of its being raw, and not fit for keeping, I have already obviated by this reason, that it is not boiling that matures and preserves Malt-Liquors, but a right, and due Fermentation, and its Spirit; which is likewise further confirm'd by the Practice of a certain wealthy Virtuoso near *Bristol*, who constantly brews his Ale and Table-Drink without boiling their Worts: and, in his own Words, He sometimes keeps his Ale near twelve Months, and believes both to be as good as any of his Neighbours: Notwithstanding he is very particular in another Respect, which is, that he never puts Hop or any other Bitter to either Sort, and affirms it to be pleasanter and wholesomer without; tho' he formerly us'd to brew in the common Way.

C H A P. XII.

Of Worts and their Improvements after a new Method.

WORT is the Oily, Spirituous Parts of the Malt, obtain'd by Infusions and Washings of hot Water, that lye and soak with the Grain, one, two or more Hours; which gradually opens the Pores, whereby it the more freely imparts its Virtues by the further Assistance of a Cover of fresh Malt, which here prevents the Escape of the finer, softer, and most penetrating Parts of the Water by Steam, and causes a more equal Distribution of them throughout the Body of the Mash, by a due confinement of the Heat; and being swell'd and saturated to its utmost distention, returns the over-plus Liquor laden with the sweet, balsamick, nourishing, pleasant Parts of its Flower, and so continues to emit the same in a regular Tincture, by the several Ladings over or Washings that leisurely follow, and are constantly discharged by the Cock without stopping, till the just Quantity is got off in a fine transparent Stream. Now to enjoy this virgin, delicate Liquor so obtained, free of all Adulteration, much Waste, and in its utmost Purity, is the Design of this Part. To this End, I put fresh Hops first rubb'd well between the Hands into the Tub under the Cock for the Wort to run on, all the time it is spending off, and when I have my Quantity of first Wort, I empty the Tub of that and the Hop, still continuing without intermission my Leakings over and Runnings out on another Parcel of fresh Hops for my second Wort; and if after that small Beer is to be made, more fresh Hops should be employed to receive it all the time it comes away: And when I have got possession of a genuine Wort, it is to be managed as before, and as hereafter I shall direct. Now I am to account for the Excellency of this Method,

thod, and to show that it transcends that practised by me at my great Brewhouse; where after the first Piece of Wort was discharged off from under its Capping of fresh Malt, all the after Worts were obliged to be exposed an Hour, or near one each, on the Goods, to infuse and bring away their Strength; about half an Hour running off, and almost half an Hour longer before it can be pump'd out of the Underback into the Copper. In all which three Ways the Worts sometime suffer in their better Part, which I prove by the Accidents of pricking, or a little souring of the Wort, that frequently happens in the Mash-tun or Underback, especially in hot Weather. From hence it was that my Malt-Liquors would sometimes suddenly acquire Staleness, because truly speaking, they thus were deprived of part of their original, native Sweetness before they went into the Copper, that is irrecoverable afterwards. But as this ancient Management commonly affects the Wort more or less in its fundamental Principle, but so as at first not to be perceived by the Unwary and Ignorant; it generally likewise escapes the Censure of the Drinker as to its true Cause, who falsely imputes the Badness of it to the Underboiling it, the Length of time in keeping it, or to the Want of a sufficient Quantity of Hops in it. However, it is certain that such damaged Wort is of dangerous Consequence to the humane Body; for if the Wort is sick, it cannot fail of communicating its unwholesome Quality to the Blood; and therefore I hope my Caution will give a just Idea to my Reader of the too commonly over-look'd Mischief that accompanies such ill brewed Beers and Ales, and so prevent the Loss of Health, Time, and Money, that many have been brought under, by not knowing the Source and Spring of their Illness; for it is certain that great Errours may be insensibly committed in the smallest and meanest Preparations, for want of rightly understanding the Forms of Nature. So that I think myself obliged to write against the necessitous (though common) Way I formerly

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merly followed, in suffering the Wort to lye in the open, broad Mash-tun, and Underback of my great Brewhouse an hour and a half, or two hours, without so much as a Hop in it to secure its innate, tender Virtue, or Sweetness, against receiving prejudice from Time, Utenfils, Heat, and *Effluvia's* of corrupted Air. On the contrary, the Method of obtaining Wort by Ladeing over hot Water proves the vast Benefit that it receives, when intirely preserved in its pure, natural State; as by such quick Dispatch, and the Tincture of the Hops it surely does. For it is certain, that both these Conveniencies potently oppose and resist Acidities and other ill Qualities, which often have proved the Bane of humane Bodies, and in their Room maintained Malt-Drinks in a wholesome, pleasant, mild Condition from their first running out of the Mash-tub to their last Consumption. Which Management, is also much better than that practised by some common Brewers, who to secure all ~~safe~~, lay a good Quantity of Hops in the Hollow between the false and fix'd Bottom of the Mash-tub: But by their Leave they are wrong in so doing, because here their Hops are obliged to lye the whole time of the Brewing, which consequently must extract the foul, disagreeable, earthy Part of them, and do the Drink great Damage. For herein consists the nicest Point in extracting the Virtue of any Vegetables, Minerals, &c. especially such as require several Digestions; first, by a proper *Menstruum* to obtain, and afterwards to preserve their fine, purer, and better Parts, so as at the same time to avoid their more gross and terrene Qualities: In this, I say, consists the Perfection of all such Artificial, Spirituous Liquors that are to be procur'd by Infusion, Decoction, &c. Thus, Take a common Fire-shovel and heat it, then put Coffee-berries on it, and heat them also till they sweat; while this is doing, set some Water over the Fire in a Coffee-pot, when heated, throw it away, and dry the empty Pot on the Fire; then take the Powder of the heated Berries and put into the

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warm Pot, and immediately Water heated under a close Cover and just before it boils, over it; and then this previous, gentle Heat by the present Admission of igneous Particles into the Pores of the Berries, will so distend and divide them, as to cause them much readier to communicate their purer, and lighter Parts to those of the heated Water; and in three or four minutes standing close cover'd will afford a pleasant, strong Liquor without partaking any of the harsh, acid, gross Part of it, which the common Management yields more or less by using the Powder cold, boiling and standing double the time.

Worts prepared by Digestion.

By this Way, as a late Writer observes, the Particles of Bodies are extracted, which are more light than the terrestrial Ones they proceed from, and that by a certain *Menstruum* that they intimately mix with. To this end, a gentle Fire is commonly used, that the Corpuscles which are most volatile may separate as it were of their own accord; for a fierce Fire forces out the Fæces as well as the finer Particles; and if it does not abate the Strength of the Liquor, it will not fail of fouling it; according to which Rules, says he, there may be practised a Sort of curing strong Worts, thus, viz. Put your Wort into the Copper, and on it fit a blind Head that may be closely secured with a Paste, which by a moderate Fire may be digested Twenty or more Hours, with a sufficient Quantity of Hops, or some other Ingredient instead of them, after which it may be fermented as usual. By this Method, either Malt, or Treacle Wort, is said to be brought into an excellent, drinkable Condition, without diminishing its Spirit or fine Part. But I can't joyn in Sentiment with him on this Account, because by this long, close Stewing, the whole Power of the Hop is incorporated with the Wort to the last degree, never to be separated while it is Drink; and then

then it will be attended with many ill Consequences, as I have before observed: Besides, the Wort here is heated or boil'd in the dark in a very blind Manner, and may thus obtain too thick a Body, which will much take off that fine, vinous Consistence which all Malt-Liquors should have: For Wort, though it has by a proper Length of Time boiled into innumerable Particles; yet by being afterwards boiled on too long, the whole Body of it will again reunite and become an intire Consistence, as it was before it broke into such Particles. But I must own, if this Operation, can be truly adjusted, so that the Wort and Hop may be boiled to a true Crisis under Cover, it is an excellent Way, and I am a Votary for such keeping in the Steam of Wort; though there is an Objection made by some, that the Wort can't loose any Spirit in boiling openly, because the Liquor was never yet fermented. To this I answer, that though a Spirit can't be extracted from Wort, till it is fermented, yet its certainly true that the softest and finest Parts of either Water or Wort will fly away in open and long boiling, that were intirely necessary to incide and dissolve the viscid Body of the fermented Liquor, and make it healthful to the Drinker. Therefore I think this same Author more in the right when he advises, that as soon as Wort and Hops are put into a Copper, there should be a large blind Head fixed on the same, that is to be luted so fast as nothing can evaporate; Then gently boil the space of one or two Hours as the Strength of your Liquor is; then remove the Head, strain the Hops, and let out the Wort into a Cooler, so, says he, you have a Liquor in which is the full Virtue of the Grain and Hop. But in my humble opinion he has not hit the Mark yet; for though such Confinement preserves the Steam, and some Virtue of the Wort from flying off, it is an obscure and uncertain Way; because there is no seeing when the Wort breaks, nor an Opportunity of taking out the Hops in due Time, so that there ought to be a better Method contrived,

trived. To which End I advance my Notion as follows, viz. In September 1736, as I was travelling through Norfolk, I happen'd into the Company of an eminent common Brewer, to whom I was hinting the great Service of confining the Steam of Worts while they boiled. In answer to which he told me he had attempted the very thing, by fastening his two wooden Doors just above the Curb of the Copper, and also thought he had secured the square Hole in the Middle of his Copper-back; accordingly he ordered the Stoker to boil the Wort as usual; but it was not long before the Board on the square Hole gave way, and the Wort bursted out with such Fury that it boiled over on the Ground; and had like to have scalded the Fire-Man; which so affrighted him that away he went, and could never be perswaded to live with his Master afterwards. Here I observed his Copper-back to be but three Foot higher than the Copper, which consequently was too short a Distance for such a Tryal: for in this Case there should be such a space allowed as to weaken the Ascent of the boiling Wort and Steam: So that I am of Opinion nothing less than four or five Feet high Vacation ought to be allowed for this Performance; in order to break the Force of such an Ebullition, by thus giving it Room enough to expand, and with all the Advantage that can be given to the Strength of the Brick and Wood-work about the same. By this Contrivance you may adjust the true Time of boiling both Wort and Hops, and that by only turning the Cock at the End of your Copper-Arm, and see at any time in a little drawn Wort, in what Condition all the rest is; which is far more profitable to the Brewer, and much better for the Drink than boiling a first Wort four Hours with all its Hops, as I heard another did in an open, low Copper, and yet was reckoned the greatest Brewer in the Country he lived in. In fine, the Benefit of this new Way must be considerable, since it's generally allowed, that according to the present common Mode of laying a Back over

the Copper, with a narrow Hole in the middle of the same for the Evacuation of the Steam, and a Pair of folding Doors at the Front; near half of the Waste of Worts is saved, which used to be lost when boiled in an open Copper.

How three Men in Partnership Brewed and sold Ale without buying Malt or paying Excise.

This Scheme as I was credibly informed, was invented by a *Yorkshire* Man, who buoy'd up with the Assurance of Success, proposed it to two of his Country Men, that readily came into his Measures. For this Purpose they took a ground Room in *Grays-Inn Lane*, which they furnished with a large Tub, a few Casks, and a small Kettle. Then they proceeded and bought a Sack of the coarsest Sugar, putting the same into the great Tub, first charged with a due Quantity of cold Water that they mashed and mixed well together. To this they added an Infusion of Hops, so made by pouring scalding Water on a Parcel in a Firkin, that when soaked enough they drew out at the Tap-hole, and work'd all with Yeast as is done in Malt-Liquors. When the Drink was ready, they carried it out in the Dark to a Cellar in *St. Martins-Lane*, where they sold it for common Ale at a Price that invited good Custom, and that brought in such a Profit as soon made two of the Partners become extravagant Rakes to the Ruin of their dark Enterprize.



C H A P. XIII.

The Barnstable Way of Brewing a Hoghead of fine Pale Ale.

THEY draw off a Hoghead of fine pleasant Straw Coloured Ale from twelve Bushels of Malt, thus, viz. They boil the Water, then throw two Pails of cold

a Hogshead of fine Pale Ale.

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cold into the Mash-tun, and the boiling hot Water on that; then immediately put in the Malt half a Bushel at a time: After stirring it till all is soaked, they Cap it with Malt or Bran, and cover it close to stand three Hours; then see if the Mash is sunk in the Middle which it will sometimes do, and when it does, it shows the Strength of the Goods, and must be filled up level with boiling Water to stand half an Hour after, when it is to be run off in a Goose-quill Stream, which is to be returned upon the Goods again, by a Bowl or Pail full at a time as back as you can from the Cock; for then the Liquor strains through the Body of the Goods, and at last comes very fine; otherwise you force the thick Part down to the Cock: this is called Doubling, which they continue to do for half an Hour, then stop and let it stand half an Hour longer in Winter, but not in Summer; then they rub four Pounds of Hops very fine into the Kieve for the Wort to run on; they don't draw it off too near before they lade over more boiling Water out of the Copper, that is to be continued till you have your Quantity of Ale Wort, which with all your Hops is to be boiled till the Liquor breaks or curdles; then they empty all into large earthen long Pans or Coolers that they work when cold with the same Hops all together, thus; *viz.* They put a little Yeast (as little as may be, and that not a Day old if they can help it) to a Parcel, and mix that with all the rest to work Twelve or Fourteen Hours, and then they directly strain it into the Barrel, where they keep filling it up with fresh Wort till they leave it full at last. When the Fermenting is finished they paste a Piece of brown Paper over the Bung-hole for a Fortnight, which will very much conduce to its fining by its having a little Air, and then bung for good with a wooden Stopple. Thus they'll draw their Ale perfectly fine in three Weeks or a Month at most.

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N. B. They

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N. B. They never Mash here above once for their strong Drink, and seldom make small because of its great Cheapness. Therefore they think it turns to a better Account to leave a Strength in the Grains for feeding their Swine.



C H A P. XIV.

*Working Beer and Ale after a new Way to
their great advantage.*

YEAST is an Acid, as appears by its soon turning sour, and consists of a great Quantity of subtil, and spirituous Particles, wrapped up in such as are viscid: When therefore this is mixed with Liquor, it occasions an intestine Motion by the Interfering of Particles of different Gravities, as the spirituous Parts will be continually striving to get up to the Surface, and the viscid Ones continually retarding such Ascent and preventing their Escape. So that by these two concurring Causes, the Particles extracted from the Grain will, by frequent Occursions, be so comminuted, as continually to encrease the more subtil and spirituous Parts, until all that can be made so by Attrition or Frotting are set loose from their viscid Confinements, as a learned Author plainly demonstrates. It is also influenced by the Air that in Summer is warm, light, and thin, and greatly promotes it; in Winter it's thick, cold, and heavy, and much retards it. Also in Spring and Summer, the floating Particles of the Air that are of the same kind as those in the fermenting Liquor, joyn them with their Strength, and make the Working more violent. So Malt-Liquors made from Beans, Oats, or other Vegetables will ferment higher and be stronger, if brewed when they are in blossom,

After

to their great Advantage.

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After the old Way.

As I have all along in the several foregoing Operations endeavour'd to preserve the more pure, light, and subtil Parts of the Water, Malt, Wort and Hops. I shall here likewise do the same in Fermentation. In the Working of Beer, and Ale the Spirits have the greatest Opportunity of making their Escape, and therefore here is the place for your chiefest Care, that the Fermentation may be brought on cool and leisurely under the close Cover of a Lid and Cloaths to preserve the Spirits; for if you put your Nose over it while it is working, you'll find the Strength ready to suffocate you; which plainly shows it emits a great deal of spirituous Effluvia, that will fly away if not kept well in, as you may also prove by putting a lighted Candle a little down under the Cover and it will extinguish it. But if the Fermentation is not thus confin'd, your Candle will remain lighted, because the Spirits will then evaporate freely.

After the new Way.

This is very different from the old; for by this the Use of Tubs and working Tuns are wholly laid aside, on account of the great Loss of Spirits that such open Utensils expose the Drink to, that here have such a free communication with the circumambient Air, as to be influenced by it in a most plenary Manner; so that if too free an Access to the aerial Particles is detrimental to the Malt-Liquor, here is full Liberty for their Action. To prevent which, take a little Wort before it is quite cold, and mix it with some Yeast; when it is fermented, put it into a Hogthead or Butt, and on that let the Wort run out of the Back, or pour it out of your Tubs as fine as possible, and as cool as the Season will permit. Then stop up the Bung-hole in the Head with a turned Piece of Wood wrapped round

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round with wetted brown Paper, and let the Yeast work out of a common Cork-hole made in the Front of the upright Cask within about an Inch of the upper Head, by a little Piece of Leather nail'd under it, and a wooden Spout under that, to convey the Yeast into a Tub on the Ground; so will you enjoy a Drink much stronger, finer, and better relish'd, than when work'd and tun'd after the old Fashion: For this Way causes the Beer or Ale to taste smooth and retain a brisk, lively Quality to the last. But then such Working must be in a right manner, neir'er too much nor too little. If in the first Degree, it will be apt to boil in the Cask in Summer almost like the Motion in a Copper, and bring it under a stale Hardness, make it taste harsh in the Mouth, and give too deep a Colour to the paler Sort of Drink: For this Reason some will follow this Method of Fermenting it all together in the Cask only in Winter and not in Summer. If in the second Degree, it will be always sputtering and never fine. But the Danger of these Extreame will not be very hazardous where Care and Judgment attend the Work, and so may be performed at any time of the Year with safety, tho' the Equinoxes or most temperate Seasons are certainly the best. Besides which, here is a great deal of Waste prevented that always accompanies the Vat, Tun, Pump, Pail, or Jett, used in working Malt-Liquors after the old Way. And if there is almost half the Waste of Wort saved in boiling Malt-Liquors by a Copper-back, there is also a Waste of the Drink prevented that otherwise would happen if work'd in the open Tub or Tun: And to prove the great Benefit of this Method, make but an Experiment even in your small Beer, and you'll find, that, work'd in the Cask, stronger, pleasanter, and will keep longer, than that first work'd in an open Vessel, and afterwards put into the Barrel, which consequently must likewise render it much wholesomer, than Drink fermented in the open Tun, because by this Means it is furnished with a great Plenty of its own original Spirits, that otherwise would cer-

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tainly make their Escape, and the Liquor become flat and weak. So that in my humble Opinion, (and I hope it will become general in a few Years,) no Drink made from Malt will be esteemed, but what is brewed by infusing or boiling the Hops a little While, according to these my Directions, and work'd only in the upright Cask, as I have here directed.

To forward Fermentation.

If you have but little, or if you have bad Yeast mix a little Sugar, Flower, and Salt with it, and some warm Wort, or Beer, and it will raise it, and make it go a great way in working Beers and Ales. So it will if mix'd with Grounds of strong Beer, and will make it fit both to bake Bread and work Beers and Ales, and the sooner if you let the Mixture lye by a Fire. But some for a Make-shift will mix only hot Water and Sugar with stale Yeast, and recover it fit for Service.— Others will knead Bean Flower with Water into a Dough, and put it into the Wort.— Or if you put Wort in a Vessel on its Grounds, it will ferment it, provided it is not sour; but the Grounds won't work the Wort if put among it in an open Tub.— Others when Drink is backward in working will put some Stone-Lime into it.— Salt, Pepper, and Flower mix'd together will make Drink work that would not before.— Powder'd Ginger alone will help.— Or Ginger, Brandy and Flower mix'd together.— Or a Gallon Stone-Bottle fill'd with hot Water.— Or in case you can get no Yeast, Honey, Sugar, Leaven, or Treacle, will do it alone.— Or Flower, Salt, and Whites of Eggs mix'd with Treacle.— Or by putting a Chaffing-dish of live Coals under the bottom of a Tub or Tun.— Or by using some Salt of Tartar.— But in particular be very careful not to break the young yeasty Head, for this Cover helps the viscid Body of the Wort to keep in the Spirits, for all Fermentation is much promoted by rest.— Also to supply the Want
of

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of common Yeast, in Gentlemens Houses distant from
Towns, I have heard, they cut and beat Isinglass small
and fine, which being four Ounces in Quantity, they
mix with two Quarts of stale Beer; then let it stand in
Infusion till dissolved, but without stirring it; then draw
or pour off the Beer, and keep the thick Part in a Pan
before the Fire, so as just to keep it warm, and in about
two or three Hours time, it will rise and ferment and
look like Yeast; and then it is fit to use, either to work
Drink with, or to bake Bread.— If your Yeast is
sourish it will be apt to fox your Drink.— If you
work your Drink too hot, you may expect to have it
quickly fall, and either fox, or be flat, and sudden-
ly stale.— You may make as much Yeast as will lye
on a Crown-piece work a Thousand Barrels, by first
putting it into a Pint, then a Quart, and so on.— All
new Drink must be tun'd before it falls, or else it looses
its Spirits.— Some are so ignorantly covetous that they
will reserve out some raw Wort, and set it a working
in order to save the Waste of it in boiling; the Consequence
may likely cause a sweet and bitter disagreeable Taste in
the Drink, and afterwards bring it into a prick'd Condi-
tion.— Yeast will be good two Months together, if cold
Water is put upon such thick Yeast as it is settled at the
bottom of a Tub, and pour'd off once a Week, and
fresh immediately put on.— Or when the Drink is
working, put into the Vat, a Whisk, Hasle-rod, Broom,
or a Branch of Juniper, or Furze, and let it lye all the
time it is fermenting; then take it and hang it up in a
dry Place, and though it be Six or Eight Months be-
fore it is used, it will be very sweet and serviceable for
the next Brewing.— Or Bottle the Yeast after the
manner I have formerly directed.— Or when strong
Drink works slowly through the Viscidity or Clamm-
iness of the fermenting Liquor, or Coldness of the Sea-
son, a few live Coals or new made Wood-ashes will
remedy that Inconvenience, by dissolving the oleaginous
Particles and separating them, the alkaline Salt in the
Ashes being excellently adapted for this purpose: the
same

same effect will be produced by a little Salt of Tartar, or an Onion dipp'd in strong Mustard, or a Ball made of Quick-Lime, Wheat Flower, and the White of an Egg beat up into a Paste, a Piece of Which being thrown in will occasion a new Fermentation: But these last are only to be used when you are sure this Defect proceeds solely from the Thickness of the Liquor; for otherwise these volatile and fiery saline Substances will so break and divide the Texture of the Fluid, that with themselves they will make way for all the contained spirituous Particles to fly off at the Surface.

To cure new Drink damaged by the Frost.

If you are necessitated to brew strong Drink in frosty Weather, it is a great Chance but the Frost takes it in the working Vat, especially if you should let the Wort be ever so little too cold before you put the Yeast to it; there is then no preventing it. You may know when this Misfortune has happened to your Drink by its not working so kindly as other does; for it will ferment a fresh upon a succeeding Thaw, even if it has been in the Cask for a Month or two, and a Frost should have continued all that time; however this is a certain Rule to know it by, *viz.* when upon tapping it you find it very sweet, somewhat like a Syrrup (though you have allowed the sufficient Quantity of Hops to it as usual) and is commonly foul: Such Liquor will never be well tasted as other Drink, keep it ever so long, without using some Remedy.— The usual one to a Barrel of such Drink, is to make a little more than a Pail-full of fresh Wort, into which put a good Quantity of rubbed Hops, and boil it about half an Hour, so that it may be extraordinary bitter; and when it is cold enough, draw off a Pail-full of this damaged Drink and fill up your Cask with the bitter Wort in its stead, and it will work a new.— The Fermentation being over, stop it up, and let it stand for a Month, And if upon tryal you find it has come to, well.— But if it

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still retains its sugarry Taste, then get ready another Barrel sweet and dry, into which rack off this Drink, and put into it half a Peck of parch'd Wheat, and a Pound of good Hops gently dry'd before the Fire, rubb'd a little and tied up in a fine Net; this hang in your Barrel by a String fastened to the Bung, which drive down tight, leaving only the Vent-hole open for a Day or two in case any Fermentation should ensue; afterwards stop close, and in three Weeks or a Month's time, it will be cur'd and fit to draw.

N. B. The Pail-full of damag'd Drink may be added to your Table-beer.

To check a forward Fermentation.

In *Northamptonshire*, and many other Places, they reserve a Piece of raw Wort for this purpose, and to prepare it for keeping, they get it off the Lees as fine as they can, and lay it very thin, else it would ferment of itself by the heat of the Salt and Sulphur contain'd in them. In Summer time when the Beer or Ale ferments too high, they mix a Parcel of this raw Wort to lower it, and so on in the same manner for several Days, which every time adds new Viscidities, that entangle and keep the spirituous Parts from flying off, at the same time breaking the cohesive Principle into finer Particles, whereby it makes the Drink so much the lighter and fitter for a more easy Digestion: Contrary to that worse way of heating in the Yeast, and loading the Drink with a heavy, cloging, unwholesome Matter: by which Management, the raw Wort will keep sound more than a Week, and is so serviceable for improveing Ale, that its constantly practis'd throughout the Year; for in Winter they commonly heat their Parcels to invigorate the new Drink, that it may potently resist the Severity of cold Weather; and then, as I have several times observed, the Malt Liquor will knit and sparkle in a Glass though drawn out of a Barrel. And I must own I think they brew the best Ale in this County

County of any other. So in the same manner they serve their small Beer that drinks extremely pleasant. In case your Drink works too violently in the Cask, (after my new Method,) then run a Brass-Cock into the middle Cork-hole of your Butt, and draw out a parcel, and in the Room thereof, put as much raw Wort into the Bung-hole in the Head, as will sufficiently check it, or burn Brimstone under or about the Vessel and it will do it directly.— Also Salt, Allum, Niter, Spirit of Vitriol, Oyl of Sulphur, Spirit of Salt, and all other Acids abate violent Workings of Malt Liquors. For the rest see my first Part, *Page 53.*— *Third Edition.* But before I leave this Topick, I think it necessary to add the following Account, as it was related to me at *Norwich*, in *September*, 1736. by one of the same Brew-house. The Tun-man, being ambitious to supplant the Work-man Brewer, contrived to bring about his End by dividing a Lump of Grease, and scattering the Bits into several Parts of the Tun, that then had a Guile of Nogg or strong Beer working in it; and though the Brewer left it fermenting in fine Order, yet when he came again, he found it all fallen flat, and only just covered with a thin Creamy Head. Thus this Villain brought the Brewer several times into disgrace, till at last they suspected and detected him in the Action, on which the Rogue fled.— When Liquor is of a thin Substance, and abounds with many subtile, and very fugitive Particles, something of a gross and viscid Consistence must be used to bridle and restrain their too great Activity; To which end, the White of an Egg and Wheat-Flower, old Yeast, and a cool Position, are very serviceable.

C H A P. XV.

Of Brewing Butt Beer called Porter.

THE Water just breaks or boils when they let in a Quantity of cold to keep it from scalding, which they let run off by a great brass Cock down a wooden Trunk (which is fix'd to the Side of the Mash-tun) and up through a false Bottom into the Malt: Then Mash with wooden Oars half an Hour; by this time the Water in the Copper is scalding hot, which they likewise let run into the Malt and Mash half an Hour longer. This they cap or cover with fresh Malt, and let it stand two Hours; then spend away by a Cock-Stream into the Under-back, where it lies a little while till a second Liquor is ready to boil, but not boil, with which they Mash again to have a sufficient length of Wort that they boil at once, or twice, according to the Bigness of their Utenfils. Others will make a third Mash, and boil a second Copper of Wort. The first Wort is allowed an Hour and a half's boiling with three Pounds of Hops to each Barrel. The second Wort two Hours with the same Hops, and so on. Some calling the First, Hop-wort; the Second, Mash-wort; the Third, Neighbour-wort, and the Fourth, Blew. Which last being a most small Sort, is sometimes allowed Six or Seven Hours boiling with the same used Hops. When in a right Temper they let down the Worts out of the Backs into the Tun from their grosser Contents, where they coolly ferment it with Yeast, till a fine curl'd Head rises and just falls again, that sometimes requires Twenty-four, sometimes Forty-eight Hours, as the Weather is hot or cold to perform this Operation. Then they cleanse it off into Barrels one Day, and carry it out the next to their Customers, keeping the Vessels filling up now and then in the *Interim*. For making this Drink with a good Body, they commonly draw off a Barrel and a Firkin, or a Hoghead, from a Quarter of brown Malt, and
sell

An Account of the destructive Weevils, &c. Or
sell it for Twenty-three Shillings, *per* Barrel. But this
is govern'd by the Price of the Customer ; so that two
or three Sorts are sometimes carried out from one Brew-
ing, for with the Blew they can lower it at pleasure ;
always observing that the higher the Malt is dried
the cooler the first Liquor or Water must be taken
or used ; therefore the first Wort governs the second
Liquor either to be hotter or cooler. If that was too
hot you may know it by its bearing too great a Head
or Froth in the Receiver, and so *è Contra* ; a midling
Head shows the first Liquor to have been taken right.

CHAP. XVI.

*An Account of the destructive Weevils, with
several Ways to destroy them.*

IN some Counties they call it Bood, others Pope,
and Whool. It is a Kind of Beetle about the Big-
ness of a large Flea, and, like a small Ant, will crack
under the Nail like a Flea, and will not only eat the
Malt Kernel, but also where they are in Abundance
will bite a Person in bed, haunt the Cup-board, and
even feed on the Plates where Meat has been eaten.
These Insects are the Pest of Corn Lofts, and are
such Travellers, that when one is empty, they'l presen-
tly make their way to another, unless the Granary stands
independant of other Buildings. They don't breed in
Winter, only in Summer, and then the Slackness or
Dampness of the Malt, which by lying in a Heap,
heats, contributes to their Encrease ; so a Wall,
that the Grain lies next too, by its giving in wet
Weather, will cause a Moisture and sometimes have
the same Effect : likewise when Malt is kept two or
three Years together in a Loft, the Dust that it acquires
may bring on a Heat, and that cause the breed of
this Insect. And why the great London Brewers are
not so much troubled with them as the Country, is
because

62 *An Account of the destructive Weevils;*

because they are always emptying and receiving, that so disturbs them as to hinder their Increase. A Brewer in the Country built a Loft that stood from other building, and though he thought himself secure by this Means, yet was it not long before he had his hated Guests; for being necessitated to buy Malt at another Town, he ignorantly bought some Weevils or Whools in it, which to get rid of, he would not suffer any Malt to lie in the same six Months together; this answered his Purpose, for it starv'd them quite. But where they are in great Numbers, and have food enough, they'll destroy a great deal in a little time, beginning at the end of a Kernel, and so eating into the Flower, spoil the Malt and deceive the Brewer; for these as they are nourish'd or encreas'd by Putrefaction, and often unperceived ground with the Malt, and boil'd in the Drink, fox it, and cause it to grow stale and rope, and thus are the Beginning of Corruption, which like Leaven, is continually encreasing till it has brought the Whole under a total Damage.

To prevent.— Screen the Malt now and then from the Dust, and lay it dry against Boards, and empty your Loft in due time.

To destroy great Numbers of them, and keep them under.— Is to shovel the Malt up into a Heap, and they'll all make up to the Top, by which you may take off the major Part and sift them out, then stirring and heaping the Malt again, you may repeat the Work.

A Second Way.— Leave a Peck or less of Malt or Grains on the Floor, and the Whools will come out to feed on them, when they may be shovel'd up. They are most in Lofts at the latter End of the Summer Season.

A third Way.— When the Loft is empty they'll be apt to creep up and lodge on the Walls; in this case, white Wash with a Brush dipt in Water wherein quick Lime has been just quench'd, and it will kill many of them.

A fourth Way.— If the Room can be inclosed from

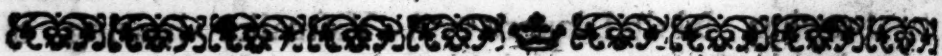
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Air, then you may destroy them by burning Brimstone or Guiny-Pepper in the same, but no Person must be in the reach of it.

A fifth Way.— Is to carry a good Parcel of Horse-Pismires, or the great black Ants, which you may shovel up with some of the Mould of the Hill, and put all into a Sack, which if you scatter in the Loft as soon as the Corn is out, they'll effectually kill the Whools, and afterwards leave the Place.

But for further setting forth the destructive Nature of this poisonous Insect, take the following Account as it was related to me by a Servant who had been brought up under a Person from Nottingham, famous for breyng Malt-Liquors. A Victualler hearing of this valuable Servant, used his strenuous Endeavours to hire him. Accordingly succeeding, he employed him to brew a Quarter of Malt. The hot Water being in the Mash-tun, he opened the Sack to put in the ground Malt, when to his great Surprise, he saw vast Numbers of Weevils creeping in the same; however, he put in both them and Malt, and mashed away, but in such pain from the fetid Stink of the Weevils, that he could hardly bear his Nose over the Place, and resolved never to brew there a second time; which he made good, and returned to his old Master again: An Example one would think sufficient enough to open the Eyes of the ignorant Citty and others, who consequently drink great Quantities of such unwholesome Malt-Liquors made from whoolly Malts, as may be infer'd from what I am going to say, viz. The small Town where this happened lies above Twenty-five Miles from London, and furnishes large Quantities of Malt to that Place by the Waggon. Now according to the Opinion of some, all or most of their Malt-Lofts or Granaries in the same are infected by the Weevil, and have been so for many Years past, insomuch that they despair of ever getting rid of this their constant Lodger. If then this horrid Creature breeds in such abundance in one small Town, and accompanies the Malt alive both before

before and after grinding, even into the Mash-tun, the Drinkers in course must swallow the Quintessence of their nasty Bodies; which before, on sight of only one being crushed under the Nail, would be apt to turn his Stomach. And therefore it highly concerns all to be assured their Beers and Ales are brewed from sound Malt, clear of that stinking Insect, the Weevil: They likewise infest Ships, and are frequently found in their Bread, which these Insects feed on as long as they can, and then die in it, and afterwards poor Tarr is often forced to take up with it; hard Fate, when it won't afford even a Weevil any longer Subsistence.



C H A P. XVII.

Common Purl improved by a famous new cheap Receipt now in use, rendring it far more wholesome and pleasant than by the common Way. Or an eminent Victuallers Method of making Purl.

ROMAN Wormwood two Dozen; Gentian-root six Pounds; Calamus Aromaticus (or the sweet Flag-root) two Pounds; Snake-root one Pound; Horserhadiſh one Bunch; Orange-peel dried, and Juniper-berries, each, two Pounds; Seeds or Kernels of Sevil-Oranges clean'd and dry'd, two Pounds. These he cuts and bruises and puts them into a clean Butt, and starts his mild brown, or pale Beer upon them so as to fill up the Vessel, about the beginning of *November*, which he lets stand till the next Season. This he does annually, and ought to be followed by all of the Business.

N. B. Was he to add a Pound or two of Galingal-Roots, to it, the Composition would be the better. This
Victualler

Victualler is of Opinion that there is scarce six in Twenty of his Fraternity in Town, who do not make their Purl only with their Refuse or Waste-Drink, such as they receive in their Tap-tubs, by throwing into it no other Bitter, but a Parcel of common weedy Wormwood; which Compound, one would think, more fit for a Puke, than a grateful, cordial, stomachic Bitter.

A Cure for the Gout or Rheumatism.

When I was at the City of *Wells*, the Town of *Bridgewater* and some other Parts of *Somersetshire*, in 1737, I could not but lament the deplorable Condition of several Publicans whom I saw there miserably afflicted with the *Gout*, which I think was chiefly owing to their stale, Butt, pale Beer, that here is their common strong Drink. To one Inn-keeper, who a long time was forced to walk with two Sticks, and another Bed-ridden, I gave the following Medicine that restored them, viz. Take one Ounce of clean Gum Guaiacum finely powdered, and put it into a Quart-bottle of right *Jamaica* Rum. Of this take half a Quarter of a Pint or less as you go to Bed, and it will cause a small Sweat, and perhaps a Stool or two. If it does not carry off the Pain in one Night, repeat it once or twice more. It is a very safe Remedy, curing both *Gout* and *Rheumatism*; and is now in great Reputation and Use among the Nobility in general; from one of whom I had this famous Receipt; which frequent Experience also warrants to be a most excellent one for any Degree of the Scurvy, and is accordingly now daily taken by many after the following manner. viz.— Infuse two Ounces of the Powder in one Pint of old Rum; of this Liquor, put one or two Tea Spoon-fulls into a Glass of cold Water, and drink it at Night, or better in a Morning fasting.

Observations on some Country Drinks.

In *Suffolk* and *Norfolk* they run very much upon a light brown or deep Amber colour'd Butt-beer, which

in the latter Place is called Nogg, is commonly sold for Six-pence *per* Quart, and in some Parts is a light, good Drink: But then, like their Cheese where they make mostly Butter, their common Ale is hardly fit to Drink, as being generally made from the earthy Goods of the strong Beer and its Hops. About *Rocheſter* in *Kent*, they brew a moſt potent, deep, brown, ſtout Beer, at four Pence *per* Quart, and which indeed beſt agrees with their brackiſh Water and bad Air. In *Somerſetſhire*, and ſome other Parts of the *West*, they affect a pale Butt-beer; and at *Briſtol*, beſides their ſtale Drink, a mild, cool-work'd common Ale is much in Requeſt for being of a deep Amber or light brown Colour, and ſo clear that they often bring it in Decanters; A Condition! That I could wiſh to ſee the hot work'd *London* common brown Ale always in, that both it, and the pale Yeaf-beaten Ales &c. may be free of that *Odium*, which Strangers are (but too juſtly) very apt to caſt on them. At *Bedmiſter*, an eminent Quaker, who had got ſo much by the Diſtillery as to live on his Eſtate, told me he had rather brew in a Kettle, than drink the Town-brew'd Malt Liquors; a Reflection which I think cannot take place, if the excellent New-River Water, ſound Malt, an Airy Brew-houſe, and a true Art were employed in the brewing of them: In order to which I have endeavour'd, in my Firſt and Second, as well as in this Third and laſt Part of the *London and Country Brewer* to bring about; and that this may be of the greater Service I have here added the following many valuable Receipts for fining, preſerving, and improving Beers and Ales in the Cellar, which, if duly and rightly obſerved, will in great meaſure ſpoil a Sort of buſineſs lately ſet up in the Metropolis, by ſome called *Vinegar Coopers*, who buy great Quantities of damag'd ſtale Butt-beers for that purpoſe.

C H A P.



CHAP. XVIII.

THE

CELLAR-MAN.



OF U L Experience shows the Want of this Art in those who are ignorant in a Cellar of Malt-Liquors, by the great Numbers of Vessels of Drink which are annually damaged or spoiled on this very Account. For this Reason, some think that a well qualified Person who has under his Care great Quantities of Beers and Ales is no less useful than a skilful Brewer; for though the latter is the prior Workman in preparing and finishing Liquors for the Cellar in a short time, yet is the former engaged sometimes Years together to preserve and keep in due order his several Sorts, that their Owner may not sustain any damage by Leakage, ill sented Casks, Staleness, Ropyness, Foulness, or any other Incident; but that through the Skill and good Management of this Person such Liquors be improved even beyond that natural Order the Brewer left them in. On this Account also may Victuallers, as well as private Persons, become Curers of their own Drinks, which by these Means they may improve after their own Taste, without being confin'd to the Caprice of a Cooper, or the Niggardliness of his Master: For I know some Brewers that are seldom at a greater Expence than Elder-berries and Isinglass for their brown Drinks, and but little otherwise for their Pale; which brings to my Memory, the Expression of a Person who invited his Friend to a good Pot of Drink; says he, if you'll go to a House I know off, we shall be sure to have

right, for this Man never admits a Cooper into his Cellar.— Also at *Reading* in *Berkshire*, I knew an Inn-keeper there, who is such an Artist as to supply the starting Cooper's Place, and doctors his Beers and Ales so well, that the worthy, eminent Brewer he takes them of, declared when he tasted them, he could hardly believe they were the Drinks he sold him, on account of their being so much improved beyond those in his own Store-house. So at *Newberry*, where is kept about two Thousand Barrels at a time of pale or light Amber Beers in Cellars and Store-houses belonging only to one Brew-house, they are so skilful and careful as to improve and preserve them in a right Condition till their Vent at *London*, &c. lessens their Number.

Of *Foxing*, *Bucking*, or *Charning Malt-Liquors*, Three *Synonymous* Terms for what in *London* they call only by the Name of *Foxing*; but in some Parts of the *West*, by the other two. In my Second Book I thought I had fully laid open this great Evil, however I find myself obliged to enlarge on the same in this place, and say, that besides the wooden, upright Pins, which fasten down the Planks to the Joists of the cooling Backs, and working Tuns, there lies between them Tow or Wadding drove in mighty close, and is what some call Corking, to keep the Water, Worts, and new Beers and Ales from leaking through the Joints, which being of a spongy, hollow Nature, especially in hot, dry Seasons, readily imbibes and very tenaciously retains any nasty Acidity that can make a Lodgment in it, and which fails not sometimes to infect the succeeding Worts, before the Yeast is put into them, and sometimes in the working Tun there will appear a whitish Cream on the Top, and then the Drink receives the Damage before the Yeast can get dominion of the Wort. When it so happens there is no longer doubt but that such unnatural, poisonous Fermentation has brought the Fox into your new Wort, Beer or Ale, and then cure it if you can. However as difficult as it appears, by having rendered abortive several Attempts that have been made to this Purpose,

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pose, I shall endeavour to write such Receipts, as I hope will contribute to its great Service, if not a Cure, and make such damag'd Drinks wholesome and pleasant.

First Receipt.— Take a large Handful of Hyssop out of a Garden, and cut it small; with this mix a small Handful of Salt, and put all into a Hoghead of ropy Drink, and in two Weeks, it will be clear, if you stir the Vessel well when its put in, and let the Ingredients remain to the last, stopping all close directly.

Second Receipt.— I knew a Person catch'd in his Brewing with this Disease, by means of a Tub that the Servant had used in washing, and put by without scouring or scalding; for all Soap naturally leaves a white Furr behind it on the Sides of the Tub, which by drying on encreases its Acidity, and turns the Wort into what we call a fox'd, ropy Condition, in some measure as Rennet does Milk. Now as Hops are of an active, rigid Nature, they are certainly an Enemy to the ramous Quality of the corrupted Drink, by piercing and cutting through its cohering Parts. For which, take a Parcel of fresh, strong Hops (according to the Quantity and Property of the Drink in the Vessel, and put them into an earthen, glazed Pot, with a little Salt of Tartar; then pour on them boiling Water enough for the Hops to infuse in like Tea, covering the Pot very close to keep all Steam in. When cold strain the Liquor off, pour it into your Vessel, and stop it close directly.

Third Receipt.— Take an Ounce of beaten Allum, with two of Mustard-seed bruised, and an Ounce of ras'd Ginger, likewise well bruised; put all into half a Hoghead of fox'd, ropy Drink, and it will easier cure this Misfortune in the Barrel than in the Tun; because in the latter, the Efficacy of the Remedy will work off with the Yeast to a great degree. This Composition will break the ropy Parts of the Drink and fine it well.

Fourth Receipt.— I knew a great common Brewer experienc'd a Secret that absolutely cured his fox'd Drink, which was in the following Manner, viz. At every Brewing

Brewing after he had strained the Sweepings of his Cooler through a Flannel-bagg, (as they all do,) he run through the same Part of his damaged strong Drink, and put it into a Barrel by itself, and so on, some every Brewing till all was so done, and it proved an entire Cure.

Fifth Receipt.— Take Ash, or rather Beechen Billets and let their Ashes run through a Wire-sieve fier hot into the Drink while in the Tun.

Sixth Receipt.— Some slack Stone-lime, and sift it into such Drink; but the Bay-salt is beyond them all to prevent and cure this Disease, by using it as I have, in Page 25. of my Second Book, made known. For Salt of any kind is an active Substance, said to give all Bodies their Consistence, and preserve them from Corruption. It occasions the many Variety of Tastes that are, and will not suffer any Insect to live in it, but like a Wall keeps the Body safe it is mix'd with against the Putrifaction of hot Airs, Liquids, Earths, or any opposite Contingent. If you put foxed Drink into a Barrel, and let it remain some time, the Vessel won't be tainted by it, but will be sweet and good on only washing it, first with cold, and then with scalding Water. The Reason is, the Joints of the Staves are so close by the Force of the Hoops, that the Liquor has not Room to penetrate as in the square Tuns, and Coolers. But above all 'tis the diligent, cleanly Brewer that escapes this Damage, when the indolent Sloven is in for it. Of the first Sort, some are so curious, as I have said, not to suffer a Pail to be dipt in cold Water, but to be scalded before it is used again. Others will allow a good Distance of time before they brew again, that the Utensils may be thoroughly clean'd and dried; for all season'd Tuns, Tubs, and Casks are capable even of themselves to excite and bring new Worts into a Fermentation in time. So likewise Worts that are laid too deep in Coolers in warm Weather will ferment of themselves, in no great distance of time, without the help of Yeast: The same in Winter though more slow. For this reason some are so justly nice as to lay them but

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but two or three Inches thick, while others will venture them six or eight, to make haste for the next Piece of Wort to succeed, and then often the Fox is bred. It's true, that it is best working Beers and Ales in season'd Tuns and Tubs, because the Powers of the former fermented Liquor that remain'd in the Wood will communicate its Quality to the next Wort, and impregnate it with its fermenting Parts, and so forward the Operations much sooner than any new Back, Tun, or Tub, that will rather drink up its Spirits, work it more slow, and leave the Drink vapid and weak.

A Kilderkin of fox'd Drink cured.— A Fortnight after it had been in the Vessel, it was rack'd off into another, and then two Pounds of *Malaga* Raisins were cut in bits and hung in a Bag by a String, that at a Month's End were taken out, least after they had emitted their Sweetness an Acidity should ensue; besides which, a Mixture of Treacle, Bean-flower, Mustard-seed bruised, and Allum powder'd, were added; which not only cured the fox Part, but also a burnt Tang that the Malt gave the Liquor.

A new Method of Seasoning new Casks.— Put the Staves, just cut and shaped, before they are work'd into Vessels, loose in a Copper of cold Water, and let them heat gradually so that they must be well boiled, and in boiling take out a Hand-bowl of Water at a time, putting in fresh till all the Redness is out of the Liquor, and it become clear from a Scum of Filth that will arise from the Sap so boiled out: Also take care to turn the Staves upside down, that all their Parts may equally have the Benefit of the hot Water. Observe also that in a dry, sultry Summer the Sap is more strongly retained in the Wood, than in a cool and moist one, and therefore must have the more boiling. Then when the Vessel is made, scald it twice with Water and Salt boiled together, and you may boldly fill it with strong Beer without fearing any Tang from the Wood.

Keeping empty Vessels sweet.— I knew a Person that brews his Drink for publick Sale, so curious in this

this Affair, that though he has red Clay before his Door in plenty, yet will never use it for stopping or bunging his Vessels, saying it will make the Bung-hole stink in a little time, even though it is mixed with Bay-salt; and therefore makes use of the wooden Bung I have described in my First Book, which as soon as he has put into the Vessel with some brown Paper, he directly mixes some Wood-ashes with Water and puts it all about the same, with as much care as if the Cask had been full of strong Drink, though it is done only to keep the Grounds sweet while they are so. And thus a Vessel may be preserved in sound Order near half a Year; for it is the Air that makes them stink; but if the Grounds are stale or sour before this is done, then it won't answer.

To Sweeten very stinking or musty Casks.— In my Second Book, Page Twenty-four, I have shewed the best Way of all others to cure foxed or tainted Coolers, Tuns, or Tubs, and here I shall do it for the Cask, and that by several Ways. First I make a strong Lee or Lye of Ash, Beech, or other hard Wood-ashes, and pour it boiling-hot into the Bung-hole, and repeat the same if there is Occasion. This is a most searching Thing that will penetrate into the Pores and minuteft Crevices, and overcome this horrid Misfortune. The second is done by Malt-dust boiled in Water, and immediately poured off into the stinking or musty Cask, where it must be well bung'd for some time.— The third and best of all is, what I have thoroughly experienc'd to answer the full End of sweetning a stinking or musty Cask, even beyond the Cooper's firing; and that is to fill your Vessel with boiling Water, near, but not quite to the Brim, and then directly put in Pieces of unslack'd Stone-lime, which will presently set the Water a boiling, that must still be fed on with more Pieces till the Ebullition has continued half an Hour at least, but if very bad, longer: And after you have so done, bung all down, and let it remain till it is almost cold and no longer, lest the Lime at bottom harden too much, and it be difficult to wash out. In this Manner you may make the
Water

Water boil in the Cask as in a Copper, and by the subtile Salts of the Lime, it will make its way into the Pores and Chinks of the Wood, so as to extirpate all ill Sent and Taste, provided the Taint has not quite got through the whole Wood.— A fourth Way is to mix Bay-salt with boiling Water, and pour it into the stinking or musty Cask, which must be bung'd down directly, and let remain some time to soak.— A fifth Way is to take the Head out of the Cask, and burn some Pitch on a Chafing-dish of Coals, clapping the loose Head on again while the Fire burns: When this is done, burn some Frankincense in the same manner to sweeten the Vessel, though Pitch of it self is not bad.

To preserve Brewing Tubs clean and sweet.— A Nottingham Woman-Brewer is always so careful to keep her cooling Tubs sweet and clean, that she never fails, as soon as she has done brewing, to rub the Inside of them with a Brush and scalding Water; then sets them by, and never fears the Fox. But if there is any Yeast or Furr left on their Sides, its a chance if the next Wort does not ferment into a creamy Head, and Fox.

To Fine, Relish, and Preserve a Butt of strong Beer. Take a Gallon of Wheat-flower, six Pounds of Molosses, four Pounds of Malaga Raisins, one Handful of Salt; make it into Dumplins, and put them into the Bung-hole in the Head as soon as you have rack'd the Drink into another Butt.

To Recover a Butt of flat brown Beer, and to Fine and Mellow stale, prick'd, and foul Drinks.— Take a Handful of Salt, and as much Chalk scraped down fine and well dryed on a Plate before the Fire; then take Iling-glass and dissolve it in stale Beer till it is about the Consistence of a Syrrup; which strain, and add a Quart of it to the Salt and Chalk, and also to two Quarts of Molosses mix'd first all together with a Gallon of the Drink, and put it into the Butt. Then with a Staff slit into four at the lower end, stir the rack'd Beer well about till it ferments, on which immediately stop up

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very close, and in Eight and Forty Hours you may draw it.

To Fine, Preserve, and Relish a Hogshead of pale Drink. Take one Quart of Oyfter-shells dried twice or thrice in an Oven, and then beaten to Powder; the pure, white Side is much the best; mix a Quart of it with one Ounce of beaten Grains of Paradise, and some Lemon-peel sliced or shred small, put all into a Hogshead.

Another for the same Purpose.— Take Alabaster, burn it, and beat it to a Powder, when cold mix it with about an Ounce of burnt Allum, and a Quarter of a Pint of dulcified Spirit of Wine; put all into a Kilderkin of strong Drink just before it is bung'd down.

To preserve pale Malt-Liquors.— Take calcin'd Oyfter-shells and Crab's Claws beaten well, and boil in a Gallon of the same Drink, which when cold put into the Vessel.

To Fine and Keep Malt-Drinks.— It has been many Years a Custom with some to do this by boiling, either Ivory, or Hartshorn Shavings in the Wort; about one Pound to a Hogshead I think will do. Most of it will dissolve in the Liquor, for after it is well boiled, there will be but little perceived. This not only fines the Drink by its glutinous Dissolution, which by its Gravity drives down the lighter Fæces, but it also preserves it sound and healthy by reason of its alcalious Nature. However you must take care not to use it in too great a Quantity, because then it will certainly give the Beer or Ale an urinous Taste, and also make it rope.

To stop the Fretting of Drink.— Boil three or four Ounces of fresh Hops in a Bag a few Minutes, then dry them in the Sun, or otherwise, put them into the Cask in which the Drink frets and it will cure it.

To Fine, keep Sound, and add a Flavour to pale Drinks. Take white Pebble-stones and bake in an Oven till they crack, then beat them to a Powder, therewith mix a good Parcel of Syrop of white Elderberries, which are now pretty common (or Honey, but this is apt to turn Acid) or Treacle: To this add Lemon-peel, and

and a few Sprigs of Clary if you think fit, while it is in Seed. Put these into a Butt of pale strong Beer or Ale as soon as it is rack'd off, and stir all together well with a Paddle.

To Fine and keep pale Drink from Fretting.— Take a Pound of Rice, dry it and beat it very small with a Penny-worth of powdered Allum, and a Handful of powdered fat Chalk; for Chalk is a great Absorbent, and with other Ingredients carries down the Fæces, and keeps them from damaging the strong Drink. But in time the Salt and sulphur of such Fæces will tincture the whole Mass to its prejudice; therefore when the Drink is fine, rack it off, and feed it with Rice, Allum, and Chalk as abovesaid.

To Renew and Fine the Bottoms of Casks, or any flat Drink.— Take one Pound and a half of Sugar, and boil it in Water, when cold add a little Yeast, when fermented put it into a Firkin of such Liquor, and it will set the Whole a working, and make it drink brisk and pleasant.

To recover ropy, flat, or prick'd Drink without putting any Ingredients into the Vessel.— They roll and tumble the Barrel backwards and forwards up and down on a Stilling, till they thoroughly break the caked hard Fæces, and thus bring the Liquor under a fresh Fermentation, so strong as almost to endanger the Head or Hoops flying off, if kept stop'd. Then after it has stood a while and settled, they peg and try it. If once serving it thus does not answer, it must be repeated till it does. Once performing this Operation recovered a large Cellar full of strong Beer in *Norwich*, which, though it was roped after an extraordinary Manner, and not saleable (but well tasted,) yet by this Management they were courted for it, even by another Brewer who bought most of it.

To Fine any Sort of Drink.— Take the best staple Ising-glass, cut it small with Scizzars and boil one Ounce in three Quarts of Beer; let it lie all Night to cool; thus dissolved, put it into your Hoghead next Morning

perfectly cold ; for if it is but as warm as new Milk, it will jelly all the Drink. The Beer or Ale in a Week after should be tapt, else it's apt to flat, for this Ingredient flats as well as fines, and therefore is now more in Disuse than formerly; but remember to stir it thoroughly well with a wooden Paddle, when the Ising-glass is put into the Cask.

A second Way.— Put two or three Handfulls of small red Gravel, or, better, scouring Sand into a Barrel, stir it well about and it will answer.

A third Way.— Boil a Pint of Wheat in two Quarts of Water, then squeeze out the liquid Part through a fine Linnen Cloth. Put a Pint of it into a Kilderkin, it not only fines but preserves.

To Fine pale Drinks, A fourth Way.— Get a Powder from the Sculptors or Image-makers, and mix it with a Dissolution of Ising-glass. This Dissolution is made after the Proportion of one Pound of Ising-glass dissolved in three Gallons of stale Beer, by stirring it well now and then with a Whisk in the cold Drink; and, which is an Allowance for fineing three Butts, with a sufficient Quantity of the Powder.

A fifth Way.— Some Brewers put, for fineing and heightning the Colour of brown Beer, five or six Quarts of pick'd Elder-berries into a Pail of Ising-glass Beer. In time they'll dissolve in the Beer, or you may squeeze and strain them through a Sieve, and then it is fit for Use.

To Fine and Feed Drink, A sixth Way.— Take the Whites of three Eggs and their Shells, and mix with Flower of Horse-beans made fine, (that have been split and dried on the Kiln,) but none of the Husk, and some clean Brandy, make it all up with some Treacle, and put it into a Kilderkin.

A seventh Way.— They'll take Hops that have been boiled Twenty or Thirty Minutes in a first Wort, and dry them again; then put half a Pound into a Kilderkin, and it will fine it very well; and are better than fresh unboil'd Hops; because these will gather, some
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into a Head and some settle, and so are apt to foul the Drink in Draught. Others have used green Hops off the Vine, when they have been near ripe, and put into a Vessel, that answered very well.

An eighth Way.— It is the Practice of a certain Man, whenever he happens to have any Drink too stale, to put some scalding Water on Hops under Cover; where after having infused some time, he puts all into the Bung-hole to fine, recover, and preserve the same.

To keep small Beer without Hops.— Another uses no Hops in making his small Beer, all the Winter especially, but instead thereof, mixes a Penny-worth of Treacle with a Handful of Wheat and Bean-flower, to which he adds a Penny-worth of beaten Ginger, and kneads it into a due Consistence, which he puts into a Hogshead and bungs up.

The Method of a private Family to improve their Drink. They never tun without putting a little Salt and powder'd Ginger mix'd together into it.

Musty Drink, Is occasion'd by musty Vessels, it is cured by running it through the Grains.

To preserve Drink that is to be sent abroad.— Draw off the Ale, or Beer into a clean Cask; then pound some slit, dried Horse-beans, free of their Hulls, till they are well powder'd, or made so by grinding them in a Mill: With this mix a little Yeast and knead it; then dry it by a Fire; but not in an Oven, because it may be too hot for this Use. The Quantity of a small Dumplin will serve a Hogshead.

To recover prick'd stale Drinks.— For this see my Second Book of the London and Country Brewer, Page 30.

To help decayed Drink.— Some will put the Ashes of Beech into a Bag which they'l let hang in the Liquor by a String, and bung close; some put Horse-beans into the Drink to preserve it mellow, but too many will give it a disagreeable bitter Tang.

To recover thick, mummy Drink that is Acid.— Make a strong Hop-tea with boiling Water and Salt of Tartar, and

and it will do by adding it to the Rest ; or rack a Vessel of mummy Beer into two Casks, and fill them up with new Beer brewed not so strong and it is a Cure.

Vamping Malt-Liquors.— Is of late much in practice for its excellent Service in recovering, preserving, and fineing strong *October* and *March* Beers in particular ; because by a new Fermentation the whole Body of the old Drink is renewed and brought under a fresh Nature ; and thus a Butt of such Liquor need never suffer damage or be spoiled by Staleness or Age, since you may alter the Case at pleasure. The Way to do it is thus : Divide your Butt into two by racking it off, then fill both up with new Drink of the same Sort, and in three Weeks or a Month you may draw it off fine.

The new Way of Managing strong Drinks from the Tunning to the Drawing.— To do this there is more than one way used. One Person I know never stops the Cork-hole of the upright Butt, but lets it alone a Month, two, or three, till he perceives the Drink well settled, and then racks it off into another Butt, with two Pounds of new Hops, which he immediately stops up at both Bung and Cork-hole.

Another leaves his Cork-hole open only a Month, and then stops it up ; then about a Month before he draws for good, he takes out a little of the same Beer, and puts it on two Pounds of rubbed new Hops, which he pours into the Cask, and stops all close and secure.

Another lets his large Cask of three Hogsheads stand, with an open Vent, six Months, only with a Piece of brown Paper pasted before the Cork-hole ; and then he puts in two Pound of Hops that had been boiled but twenty Minutes in a first Wort, and dried, and one good Handful of Salt ; then directly stops all up very close, and in about a Month's time it will be fit to draw fine and be brisk to the last. But others are so nice in this Point, that instead of keeping these boiled Hops dried by them, they so contrive to brew, that they may have them directly, to put into the Cask of Beer which they want to fine down, just as they are
done

done with; and say, that for this purpose an used Hop boiled but a little While, is better than an entire dry one, because the former will sink and drive down the Faces presently, when the fresh ones are apt to remain on the Top. On these Accounts People differ, some will fine without Racking, others will rack before they fine; some will use Salt, others none but Hops. But when they intend to tap their Butt-Beer at four Months old, they always use Salt with the Hops: For Salt stales Malt-Liquors in four Months, as much as twelve Months Age will do without it. And as for the leaving open the Cork-hole Vent, I am of opinion, that Malt-Liquors digest and maturate in the Cask in some measure as Food does in the Stomack, and thus become more fitted for the animal Secretions by a due Age, which must be more or less according to the Strength of them. Therefore it's the Practice of some not to stop up the Cork-hole for six Months together, on purpose to expose the Drink all that time to the free Admission of the Air, which will rush in, and, by its Elasticity and Pressure, throw down the gross Particles, keep it from fretting, and thereby fine and ripen it the sooner.

Racking off Malt-Liquors.— Dregs (in my Opinion) consist of the earthy and farinaceous Parts, mix'd with the acrid Salts of the Compound the Liquor is made up of, and intrinsically contain no Spirit but what they absorb from it; which Salts not being fixed are capable by sundry Causes to be incited into Motion, and so cause extra Fermentations, which, when frequent, so exhaust the Spirit of the Drink as to get the Ascendant, and render it vapid, sour and ill tasted. But I remember the Assertion of a certain Person to be otherwise, who said that the Lees of any Liquor is the strongest Part of it, but most and soonest subject to spoil and corrupt, and so long as that holds good the Liquor feeds on it, but after such a critical Time it will spoil the Drink, and this he says is the Cause for Racking; but how reasonable this is I leave others to determine. Some are so curious in the Observation of this, that they won't

won't draw off their Drink into another Cask, before it has passed a second Fermentation in the first Butt, and this happens sooner or later, as the Quantity of Fæces, the Temper of the Air, and the Place it stands in is: the Crown of Yeast that lies just below the Cork-hole (while it remains on) securing it from taking damage several Months together: And when they don't rack it, such Beer is accounted in best Order when it is drawn after the middle Hole is stopt up, because it has the greater Feed from the remaining Fæces. Observe also that, the Cask you intend to receive your rack'd off Liquor in, should always be first season'd by the Steam of a Brim-stone Rag, which will effectually stop it's Fermentation and fine it. I must likewise hint that its too common a Way with some to drive the Brass-Cock with a Hammer or Mallet into the middle Hole of the Butt, and then very likely the Crown of Yeast falls down, and the Drink grows vapid, flat, and thick; so also are those liable to the same Inconveniences who thus inconsiderately peg a Cask.

A general Mixture for preserving, fineing and relishing Malt-Liquors.— Take one Penny-worth of Treacle, Powder of fat dried Chalk, Bean-flower, Wheat-flower, Oyfter-shell-powder, Pebble-stone-powder, of each a Hand-ful; one Quartern of French Brandy, and two Ounces of powder'd Ginger; knead all together into four or five Dumplins and put all into a Butt of rack'd; strong brown Beer; And to relish it, you may hang a Penny-worth of Orrice-root, and six Pounds of chopt Raisins in a Bag fastened by the Bung: But these two last should be taken out at a Month's End. If for a Butt of pale Beer, instead of the Treacle, you may use a Syrop made with White Sugar.

To Correct any predominant Acidity in Malt-Liquors. The best thing is to buy of the Druggist, Mr. Walsley on Snow-hill, or others, some of the Oyfter-shells which have been collected from the Sea Shore, and there, by the Sun, Calcined to a Whiteness. Break these in a Mortar into Peices of the Bigness of Six-pence or a Shilling,

Shilling, and put them into the Liquor, for if you powder them, the least Motion will be apt to make them rise and foul the Liquor, which by this means is prevented and the Work done full as well. Chalk and other *Testacea* will answer the same, but not so well because they all more or less will give the Drink a disagreeable Taste.

Cloudy Beer accounted for, and its Cure.— This is a Misfortune attending both pale and brown strong Malt-Liquors, more of late Years, than in time past, and that in many Places in *England*; but most of all in *London*, where it causes frequent Returns from the Customer to the great Prejudice of the Brewer, and is occasion'd by the Hop and Malt. First by the Hop, which contributes to it by emitting its oily Body in long boiling to the Wort, and the longer the Ebullition is continued, the more you draw out its heavy oleaginous Body, that consequently fouls the Drink, and hinders its fineing; for though it may deposite its grosser Part, yet will this oily one always be in Motion, not only to retard the Fæces from subsiding by enveloping them in its tenacious Body, but is afterwards also endeavouring to gain the Ascent (as the Nature of Oyl is;) but this it cannot thoroughly do, because of its intimate Union with that of the Malt in the Percussions that the igneous Particles produce in boiling. This I take also to be the Reason, why Grains of Paradise have puzzled some Brewers to account for their constantly fouling the Malt-Liquor they are boiled in, (to encrease its Strength,) and that such Drink always remains so notwithstanding their most accurate Attempts to the contrary. So that if these are to be used, the only Way will be only to infuse them as well as the Hop as I have before observed.

N. B. The aforesaid oily Matter not being rightly managed and digested I take to be the Cause of, and Cause of cloudy Beer, and therefore resists and will not incorporate with the forcing of Ising-glass.

Secondly, when this Evil proceeds from pale Malt, it is occasion'd by its being too slack dried, or rather

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by its being cruſted Without-side by the Violence of the Fire, when the Inside is full ſlack or almoſt raw; and as thus the Malt-Kernel is in two ſeveral Conditions, ſo is the Liquor made from the ſame in two different Orders, as is plain from the View of ſuch cloudy Beer in a Glaſs, known by holding it up, and then it will appear bright and clear, but hold it down, and it will ſeem fouler and of a grey, wheyiſh Colour. So the brown Malt, that of late Years, ſince the Invention of the Plate-kilns in particular, the Kernels are made to crack, bounce and fly up by the Vehemency of the Heat, whereby they dry two or three Kilns in the time they uſed to do one, which makes ſome Part of the Malt parch'd or burnt, and the other Part raw or under dried, and which very probably may be the Cauſe of cloudy Drink, that by many is thought incurable.

To Cure cloudy Beer.— Rack off your Butt; then boil two Pounds of new Hops in a ſufficient Quantity of Water with a due Proportion of coarſe Sugar, and put all together into the Cask when cold; and it is far better than a Pap made with Rye-flower and Malt-ſpirits as ſome are for. Others have attempted this Cure by only ſoaking new Hops in Beer, which when ſqueezed, they put into the Cask of cloudy Beer.

Another Way to cure a Butt of cloudy Beer.— Take twenty Pounds Weight of baked Pebble-ſtone Powder beaten very fine, with the Whites of twelve Eggs, and Bay-ſalt powder'd to the Quantity of a Handful; beat and mix theſe very well with two Gallons of the Beer and pour all into the Butt of Drink ſtirring it ſoundly; and after three or four Days at moſt it will be fine, then draw it off its Lee; Thus you'll have a clean, fine, well reliſhed Drink free of that flying diſagreeable Lee that before poſſeſs'd the whole Body of the Liquor, and which other-ways would have remained in the ſame to the laſt.— I have ſeveral more uſeful Curioſities in the Art of Brewing to communicate when I have tryed ſome, and got the compleat Knowledge of others.

Cautions

Cautions relating to Malt-Liquors.

First, Of the Sediments or Fæces of Malt-Liquors.— As these abound with the acrid Salts of the Malt, whenever the Drink is in too stale a Condition, it should be racked off before any of the aforesaid preserving, fineing Ingredients are put into the Cask: Because in this Case, its a Chance if such corrupted Fæces do not get the Ascendant of the designed Antidote, and help to corrupt that as it has before done the Beer. For not only the Fæces, but the whole Body of the Drink will consequently oppose the Remedy, and if they be Major, the Attempt will prove abortive.

Secondly, Salt and Allum must be used with great Precaution, because they potently induce Staleness in Malt-Liquors in a little time, if mixed in too great a Quantity with other Ingredients that are to be put into the Cask, and so are apt to overcome their alcalious Parts. Therefore some will use no common Salt this way, but throw a Handful or two of it into the Mash-tub among the Malt, to preserve the Liquor sound while it lies with the Grains; and thus the Salt is thought to loose Part of its sharp Nature by its being strained through the oily Part of the broken Kernels; but even this has its Inconveniency as it is apt to retard Fermentation.

Thirdly, of Stone Powder.— This by some of the Brew-house Coopers is made use of for fineing down their Butt-beers, and is very good when it's a little burnt, because then it becomes a Sort of Lime, and its fixed Salts are thereby made to yield their Virtue to the Drink. But when the Powder of a soft Stone unburnt is used, (as too commonly is done with a Mixture of Ising-glass,) then it gives the Liquor an earthy, raw, unpleasant Taste and unwholesome Quality, which will spoil other good Ingredients it is incorporated with; as I knew once done by a Person who had made a Compound of several in good Order, that were all damaged by this, to the great Prejudice of the Beer.

Fourthly, *Whites of Eggs*. These certainly will clear, feed, and preserve Drink, if mixed with Wheat-flower, &c. but then it ought to be considered that the Whites are apt to corrupt in time and do damage, where the Drink is not very strong and able to preserve them sound; besides if in this Case too many of them are used, they may bring the Beer into a ropy Condition, or give it too raw a Taste: Some therefore when these are to be used will boil them up in Water and Sugar to a fine Syrop, and then such Syrop of Sugar will be advantageous in preserving as well as clearing the Drink when mix'd with other Ingredients.

Fifthly, *Egg-shells, and Crabs Claws*.— These like all the other *Testacea* are of an alealous Nature, but more especially so when the crude Part of them is taken away. Therefore to cure these and make them fit to be put into the Cask of Drink, bake them a little, and then you may either mix them with other Ingredients, or use them alone, by way of preserving Beers or Ales against Staleness.

Lastly, *Oyster-shells*.— These are likewise a great Alkaly or Absorbent, and are of particular Service in the Management of Malt-Liquors, especially if us'd in the manner aforesaid; but should by no means be us'd crude or unprepar'd: Therefore as many are not capable of purchasing them from the Druggists, let such first wash and wipe them dry, then bake them two or three times in an Oven after Bread is drawn, beat off their brown Part and break the White into small Pieces for Use.

Bottling MALT-LIQUORS. This is certainly a great Improvement if perform'd in a right time and manner, because Drink thus confin'd is more free from Air, Heat, and Fæces, than in a Barrel, which often exposes its Spirits to Loss by Vent and frequent Drawings out. But the greatest Improvement of all, is when Drink becomes flat and deaden'd by the Casks absorbing its Spirits, or that the Sediments have attracted them, &c. In all which Cases Bottling often recovers the Liquor and re-establishes

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establishest it in a greater Fineness, Purity, and Briskness than ever, and especially if an additional proper Food be allowed it that will give it a long Duration in a safe mellow and cool Condition, and the surer if kept from heat and cork'd well. In this Oeconomy particular Regard ought to be had to the Age of the Liquor, that it be full ripe and not too young when it is bottled; if it is, very likely it will throw out the Cork or burst the Bottles; which to prevent, cork loose at first, and afterwards firm; and if after this a Ferment is perceived, loosen again. Stone Bottles are not so good as Glass, because of their rough inside, that is sooner apt to furr, taint and leak, their Mouths uneven to Cork, and their Sides not to be seen through. Some are so curious as to use the Glass Stopple instead of the Cork, which if rightly fitted, admits of no penetration, as is well known to the Chymist, who by this means retains the Spirits of his fiery Liquors in the best manner. You may for a Day or two after bottling keep the Bottles in cold Water or in a cold Place, or have some cold Water now and then throw'd over them, to prevent any Ferment coming on, least the Air, by being thus closely confin'd, should break the Bottles, when a Cork in the room of a Glass Stopple would save them as being of a porous Nature. Glass Bottles are sweetned and clean'd either by hot or cold Water, if stinking put them in a Kettle of cold and boil them, but don't put them down while hot on a cold Place, least they crack: then lay them on dry Boards, Straw, or Cloth; if dirty, wash with hard Sand, small Stones, or better with Shot. Some steep Corks in scalding Water to make them more pliable to the Mouths of the Bottles and to fill up their Pores, and for a further Security fasten them in with small iron Wire twisted about, after the *Herefordshire* Fashion, that they practise in bottling their fine Styre Cyder. Weak Drink sooner breaks Bottles than Strong, because the Liquor has not Strength enough to detain the Spirits. To preserve Drink in Bottles lay them side ways, it keeps the Cork moist, the Air out, and confines it to the Side, where

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it can't escape, a Way much better than putting the Mouth downwards in a Frame; for then if there be any Faces they will come out at first. Putting Bottles in Sand in some measure keeps them from the Power of the Air, but this is not quite so good as if they were kept in Water, which prevents Fretting or Fermentation, and adds a Strength to the Drink by its intense Coldness, which likewise checks the Activity of its Spirits, and by its close Body keeps out Air, especially if it is Spring-Water. For this Purpose, in many Cellars there may be Tanks or Cisterns made to hold Water either with Stone or Brick by the help of Plaister of *Paris*, or with a cementing Composition made with Oyl, new slack'd Lime and a little Cotton-wool, that will harden the more, the longer the Water lies in them: Or lay such Stone or Brick in a Bed of Clay beaten and trod very fine before, so that it may be a Foot thick at least on all the Sides and Bottom, as the Brewers order their Tuns; and to empty them at pleasure a Hand-pump of a small Size may be made use of; or in Cellars there may be large Holes made in the Side-Walls that will contain a Number of Bottles, as is commonly done in the Country, and the nearer these are to the Ground the better the Liquor will keep. But if this Way is too troublesome, little Vaults may be built in the Cellar, arch'd over, that may be made so close as to keep out much Air, and so prevent the Damage that Drinks are subject to from their changeable Nature: On the contrary, if you have a mind to have your Bottle-drink soon ripe, keep it above Ground.

When Malt-Liquors are to be bottled off, observe the following Directions. Common, strong, brown Beer of eight or nine Bushels to the Hogshead, brewed in *October*, may, if free and clear of Ferment, be bottled off, at *Midsummer*; pale strong Beer brewed in *March*, may be bottled off, at *Christmas*, under the same Proviso: But always forbear this Work when it's Muddy by Change of Weather, or the falling down of the Crown of Yeast, because then the Drink goes through some Alterations that

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thicken and work it in a small Degree, which causes the Lees at last to receive the Spirits, that are hereby made smaller by the Transaction, and from hence the Liquor is fed till it is ripe for Bottling. To feed bottled Beer or Ale there are several Ways. First, put three Horse-beans into each Bottle of strong Beer, and it will preserve it mellow a long Time. Secondly, put into a Quart of Spring Water half a Pound of Sugar, (the finer the better,) and a Penny-worth of Cloves; boil all together moderately half an Hour, and scum it well in that time; when cold put two Spoon-fulls into each Bottle that is to be kept long, and three to be drank soon; it is such a great Improvement that it is generally made use of by some Publicans to recover their Tap-droppings, which it will do in two or three Days, if the Bottle is kept in a warm Place. I know a Person that puts a little Oyl on the Top of the Drink in Bottles, in imitation of the *Florence* Wine-flask, without any Cork, and it keeps it from Wind in a very lively Order. To keep Bottles from bursting, make a Hole in the middle of the Cork with a Nail or Awl, and the Bottle will never burst, yet will keep out the Wind, because the Moisture of the Drink will swell it: Or put into each Bottle one or two Pepper-corns, and it will never fly. The common Way of making Drink ripe presently is to boil some coarse Sugar in Water, and when cold, work it with a little Yeast, of this put two, three, or four Spoonfuls into a Bottle with two Cloves over Night, and if it stands in a warm Place, it will be ready next Day, and be very apt to swell the Belly of the Drinkers with its windy, unwholesome, yeasty Quality. Others will do this Feat more quick, even in the time a Mug of Liquor is bringing out of the Cellar, though it be Tap-droppings; they'l put a Piece of Diaper or Damask over the Pot or Mug, and with a Jirk turn it Topsy-turvey and back again, which with a Jolt or two more, will cause a frothy Head in Imitation of bottled Drink. Or if Drink is a little prick'd or fading, put to it a little Syrop of Clary, and let it ferment with a little Barin,

Barm, and it will recover it, and when it is well settled; bottle it up, putting in a Clove or two with a little Lump of Sugar into each Bottle.

A private Person used to bottle off a clear Ale, by boiling a Bag of Wheat in the Wort. Another would put a Spoonful of sugar'd Water into each Bottle. Another would have clear Drink to Bottle off, by putting two or three Chalk-stones into the Barrel, or Powder of Chalk.

Thus by trying frequent Experiments, of adding more or less to any of the foregoing Receipts, according to your Palate, you will arrive to the Knowledge of discerning at first view what every particular Subject requires or will bear : And remember that all Liquors must be fine before they are bottled, else they'l grow sharp and ferment in the Bottles, and willn ever be good.

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